



Report to the Planning and Zoning Commission

Prepared by the Maricopa County Planning and Development Department

Cases:

1. CPA2016002 – Mesquite Solar North
2. Z2016017

Meeting Date: August 4, 2016

Agenda Items:

1. 4
2. 5

Supervisor District: 4

Applicant/Owner: SEP II, LLC

Requests:

1. Comprehensive Plan Amendment (CPA) to the Old U.S. Highway 80 Area Plan to change the land use designation from Open Space to Utility.
2. Zone Change from Rural-190 to IND-2 Industrial Unit Plan of Development (IUPD) to allow for a solar energy facility.

Site Location: Generally located at the northwest corner of Elliot Road and 399th Avenue.

Site Size: 380 Acres

Density: N/A

County Island: No

County Plan: Old U.S. Highway 80 Area Plan – Open Space (as approved through CPA200005).

Municipal Plan: N/A

Municipal Comments: N/A

Support/Opposition: No known opposition or support

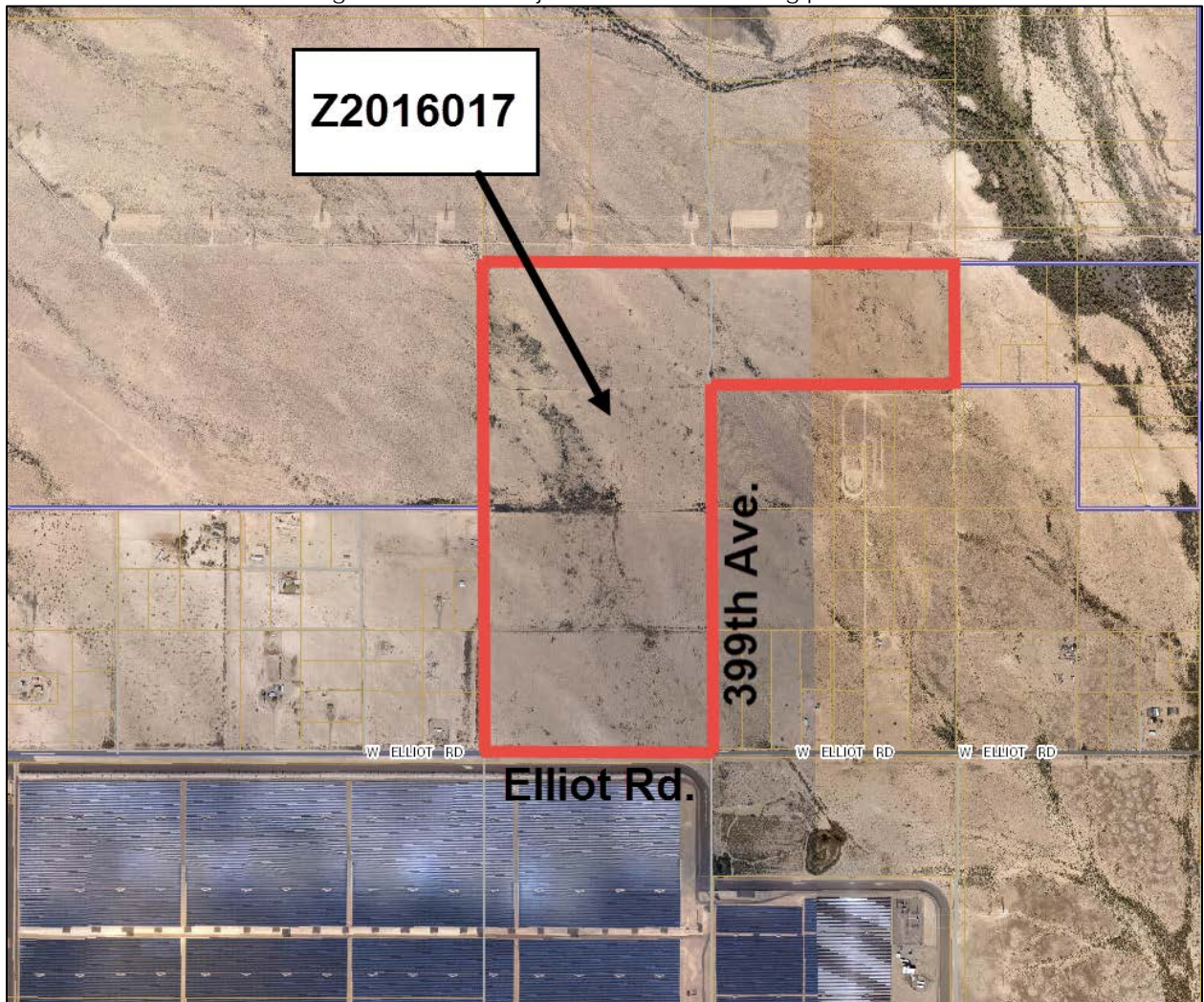
Recommendations:

1. **Approve** with conditions
2. **Approve** with conditions

Project Summary:

1. SEP II, LLC is requesting a CPA to change the Old U.S. Highway 80 Area Plan land use designation of an approximate 380 acres from Open Space to Utility. In addition, the applicant is requesting a Zone Change from Rural-190 to IND-2 with an Industrial Unit Plan of Development (IUPD) overlay. The requests are to entitle a future solar energy facility known as Mesquite Solar North. This would be a photovoltaic (PV) solar energy generation facility which would produce up to 60 MW of clean solar power. The subject property is located at the northwest corner of Elliot Road and 399th Avenue which is approximately 18 miles west of the Town of Buckeye, 10 miles south of the I-10 freeway, and 17 miles west of State Route 85.

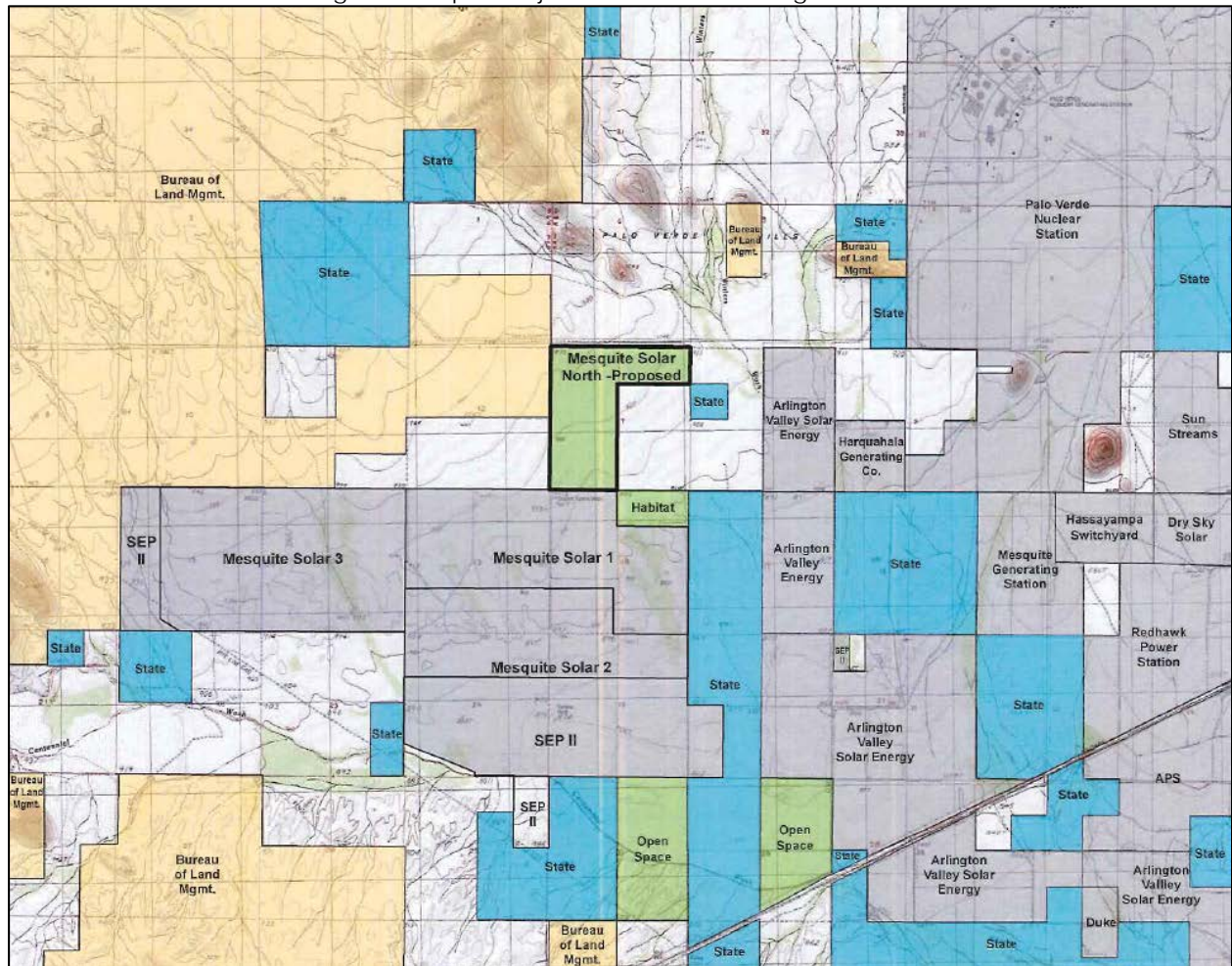
Figure1: Aerial of subject site and surrounding parcels



2. The proposed facility is just north (across Elliot Road) from the existing Mesquite Solar energy facility which was approved under Special Use Permit (Z2009022). It should be noted that previous entitlement for this type of facility required a Special Use Permit per the Maricopa County Zoning Ordinance (MCZO). The MCZO was amended with TA2014006 to allow for public utility solar plants within the IND-2 zoning district (Article 902.2.17). The subject site is also located near other generating facilities such as Palo Verde Nuclear Station, Arlington Valley Solar, Mesquite Generating Station, among

others. Private land is located adjacent to the subject facility to the north, east, and part of the west which has a significant portion along BLM owned lands.

Figure 2: Map of subject site and surrounding land uses



3. The CPA narrative report asserts that the proposed development meets the Comprehensive Plan Amendment criteria in the following manner:

Whether the amendment constitutes an overall improvement to the Comprehensive Plan and is not solely for the good or benefit of a particular landowner or owners at a particular point in time.

This amendment would allow for the potential future development of solar energy generation and energy storage facilities. Solar energy generation facilities located on the parcel would generate jobs, business income, and tax revenue for Maricopa County and Arizona. In addition, solar energy helps protect the environment by avoiding the production of greenhouse gases and other air emissions. Because solar energy is produced during bright daylight hours, when demand for electricity is at its highest, it helps to meet peak energy demand.

Since the demand for electricity can fluctuate throughout the day, energy storage technology helps to meet electricity demand whenever needed. Energy storage facilities manage the amount of power being supplied to customers, providing a

continuous flow of clean energy during periods of high demand or when solar energy is unavailable. These facilities provide frequency regulation to maintain the balance between the network's load and power generated, therefore achieving a higher power quality and more reliable power supply. Energy storage allows the system to respond effectively to disturbances and to operate more efficiently, thereby reducing the need for additional infrastructure while improving the stability and reliability of existing transmission and distribution systems.

Allowing additional solar energy generation and energy storage development within close proximity to the existing electrical transmission system of Mesquite Solar 1 to the south would reduce the amount of new transmission corridors required across lands, as compared to sites further away. Also, since the proposed amendment area is along Elliot Road, there is no need to develop new roadways as compared to sites further from established transportation networks. Amending the Plan to accommodate additional renewable energy development in the area would be an overall improvement to the Plan, resulting in additional energy development in an area that already has a cluster of energy projects and infrastructure.

Whether the amendment will adversely impact all or a portion of the planning area by:

A. Altering acceptable land use patterns to the detriment of the plan.

The proposed amendment supports and furthers the following Old U.S. Highway 80 Area Plan Land Use Element Policies:

Policy L1.3.3: Promote employment and light industrial land uses near the railroad tracks and power plants.

The proposed amendment area is within ¼ mile of the nearest existing power plant use (Mesquite Solar 1 to the south) and within 3 miles of the nearest railroad tracks. A future solar energy development project could employ up to 500 construction workers at peak; and the potential energy storage facility could contribute an additional approximately 50 workers at peak.

Policy L1.3.5: Encourage adequate buffers between land uses to protect adjacent or affected residents from potentially incompatible uses.

Solar energy generation and energy storage facilities in the proposed amendment area are compatible with rural land uses and would include vegetation along Elliot Road that would obscure views from local traffic. From the center of Elliot Road, the nearest solar panels would be 226 feet away. The proposed amendment area would include the use of fencing with slats or privacy fabric to provide a visual buffer between the project and adjacent parcels that are developed for residential use.

Additionally, the following Environmental/Environmental Effects and Economic Development policies are supported by this amendment:

Policy E1.3.1: Support and encourage local and region-wide efforts to preserve air quality.

Unlike conventional, fossil-fueled generation sources, solar energy generation and energy storage avoid the production of greenhouse gases and other air emissions.

Policy E1.4.1: Support natural drainage corridors and protective buffering techniques along significant wash systems where new development is proposed, to provide flood control, preserve wildlife corridors, and protect open space.

This request would not require significant changes in the natural drainage that flows through the site. A FEMA regulatory 100-year floodplain, Zone A, exists across a portion of the site. Maricopa County required flood control measures would be incorporated into any project design.

The proposed amendment area is not currently functioning as a wildlife corridor as it has been historically fenced. A biological assessment was conducted in March 2016 in support of Zone Change Z2016017, and it concluded that no critical habitat would be impacted within this amendment area. As such, the proposed amendment would not materially change the use of this parcel for wildlife movement.

The proposed amendment area is located in a region dominated by open space, sparse rural residential buildings and energy infrastructure. The current open space would be altered by the addition of solar generation and energy storage and facilities; however, the overall open space in the region and the County would not be significantly impacted.

Policy ED1.1.1: Encourage rural type, light industrial development near Palo Verde and along the railroad.

The proposed amendment area is currently unused and undeveloped open space. The solar and energy storage land uses proposed for the area are not expected to generate significant noise, traffic, or visual impacts, maintaining compatibility with rural and energy generation land uses with the Arlington Valley area.

- B. *Requiring public expenditures for larger and more expensive infrastructure. Requiring public improvements to roads, sewer, or water systems that are needed to support the planned land uses.*

Energy generation facilities in the proposed amendment area would not require public improvements to roads, sewer, or water systems, nor would they require public expenditures for larger and more expensive infrastructure. No improvements to local road infrastructure would be necessary due to the minimal traffic demands expected.

- C. *Adversely impacting planned uses because of increased traffic.*

A traffic analysis was prepared in February 2016. Based on the low amount of operational traffic, adverse traffic impacts are not anticipated.

- D. *Affecting the livability of the area or health or safety of present and future residents.*

Energy generation facilities in the proposed amendment area would not affect the livability of the area or the health or safety of residents. Solar energy generation and energy storage facilities would have minimal impact on the existing land uses of adjacent properties. The subject property is undeveloped former farmland bordered by an electrical transmission corridor to the north, with some rural, large residential lots to the west and east of the proposed amendment area. An active solar energy generation facility is located immediately to the south of the proposed amendment area and residents are aware of its presence. These residents are also aware of the nearby conventional energy generation units, and the nearby nuclear power plant. Further, solar energy generation and energy storage facilities do not produce greenhouse gas emissions and solar panels are not invasive to the environment. They do not produce noise pollution or odors that may affect the livability of the area or the health or safety of present and future residents.

- E. *Adversely impacting the natural environment or scenic quality of the area in contradiction to the plan.*

Solar energy generation facilities in the proposed amendment area would not result in emissions, noise, light pollution, hazardous wastes, or wastewater that would have significant impacts on existing air, ambient noise, dark skies, groundwater quality, or biological resources. The visual impacts of a solar generation and energy storage facility would be relatively small because of its low profile, and because the photovoltaic solar panels absorb light and do not cause glare. Solar panels heights are approximately 10 feet in height; lower than most other types of land development facilities. Energy storage systems are typically housed in shipping containers or unoccupied enclosures approximately 15 feet in height. This request for amendment will not adversely impact the natural environment or scenic quality of the area.

Whether the amendment is consistent with the overall intent of the Comprehensive Plan

Maricopa County has a number of area land use plans that work in concert with the Comprehensive Plan. Based on the location of the proposed development, this amendment is proposed with respect to the Old U.S. Highway 80 Area Plan elements, and is informed by the plan's goals, objectives, and policies in the open space, land use, environmental planning, circulation, water resources, growth, and cost of development elements. The proposed amendment is consistent with those goals, objectives, and policies as described in the previous sections.

The proposed request is consistent with the intent of the current Comprehensive Plan to "promote a growing, balanced, efficient, and diversified economy, consistent with available resources, that enhances quality employment opportunities, improves quality of life and is sensitive to the natural and cultural environment."

4. Access to the site would be from a proposed 24' (wide) driveway with ingress/egress to Elliot Road on the southeast side of the site. There would be an access gate further into

5. The site plan shows a provided area near the southeast portion of the parcel where a future substation and battery storage might be located. There are no specific plans for this at this time and would be reviewed during permitting if developed. It should be noted that staff had previous discussion with the applicant regarding the substation, where if transmission lines are provided they could be 90' (h) where IND-2 only allows 40' (h) maximum. However, the transmission line height would refer to Article 1111.7 of the MCZO which allows for 120' (h) for electrical transmission lines.

The site plan illustrates the layout of the Mesquite Solar North project. Key features include:

- Solar Panels:** Multiple rectangular arrays of solar panels are arranged in rows across the central portion of the site.
- Retention Basins:** Five retention basins, labeled RETENTION BASIN #1 through #5, are distributed throughout the solar array area.
- Access and Egress:** The plan shows various access points, including EX 100' WELL ESM, EX 30' ROAD & FUE, EX 45' HIGHWAY ESM, and EX 45' DESIGNATED COUNTY ROAD. It also indicates new chain link gates and fences.
- Infrastructure:** A new substation (EX SUBSTATION) and an admin building (EX ADMIN BLDG) are located near the bottom right. A new overhead transmission line and a new point of interconnection are shown at the bottom.
- Surrounding Area:** The site is bordered by W. Dobbin Road (Alignment) to the north, W. Cluney Ave (Alignment) to the west, W. Sunrise Dr (Alignment) to the south, and W. Piedmont Road (Alignment) to the east. Various other roads and easements are labeled, such as S. 43rd Ave (Alignment) and S. 105th Ave (Alignment).
- Other Features:** The plan includes labels for FEMA Floodplain Zone A, EX Transmission Line Tower, EX Well (ADWR Reg. ID 610903), EX 100' Well ESM, EX Basin for Agricultural Use, EX Drainage Channel, New Emergency Access, and EX Substation.
- Section Lines:** The plan is divided into sections 12, 13, 14, 15, 16, 17, and 18, with section lines labeled T.1 S. R. 7 W. and T.1 S. R. 6 W.
- Notes:** A list of notes is provided on the right side of the plan, detailing specific requirements and references.

6. The applicant proposes changes to the required zoning district and other Ordinance standards as requested through the IUPD overlay request. Below and continued on the next page is a chart outlining these variations from the requirements set forth in the MCZO. Justification by the applicant for these deviations is provided following the IUPD chart.

| IND-2 IUPD Zoning District Standards | | |
|--|---|---|
| Development Standards | IND-2 Base | IND-2 IUPD (Z2016017) |
| Front Yard Setback | 25' (two intersecting streets); 20' (major street/section line/highway); 15' (collector/mid-section line) | 0' |
| Side Yard Setback | 10' (corner lot adjacent to rural zoning) 5' (adjacent to rural zoning) 3' (if a side yard is otherwise provided) | 0' |
| Rear Yard Setback | 25' (adjacent to rural zoning district) | 0' |
| Setbacks for Major Streets, Section Line Roads, and Highways | 75' (both sides of centerline where service roads are required); 55' (where service roads are not required) | 25' for 395 th Ave.; 0' for 403 rd Ave.; 25' for Dobbins Rd.; no service roads required for Elliot Rd. |
| Setbacks for Mid-Section Line Roads | 40' (both sides of centerline) | 0' for 399 th Ave.; no new interior roads along Mid-Section lines required within the subject parcel. |
| Setbacks for Local Streets | 25' (both sides of centerline) | 0' for Piedmont Rd. |
| Lot Coverage | 60% | 60% (not to include solar panels) |
| Minimum Lot Area | 6,000 sq. ft. | 6,000 sq. ft. |
| Minimum Lot Width | 60' | 60' |
| Maximum Height | 40' | 40' |
| Uses Within Enclosed Building | Article 902.9.1 under IND-2: "All uses except for parking, loading, unloading or storage shall be conducted within a completely enclosed building." | Waive requirement |

| IND-2 IUPD Zoning District Standards (Continued) | | |
|--|---|--|
| Screening | 6' (height) solid wall required alongside and rear property lines abutting rural or residential zoning districts. Outdoor use requires view obscuring material. | Minimum 6' (h) chain link fencing (with 1' additional barbwire (not concertina, razor, or electrical wire) would be installed. Slats or fabric would be provided along the west where private property is located with existing residences and when/if future development on adjacent parcels occur. |
| Parking Requirements | Varies (no structure information provided at this time) | 0 Spaces provided |
| Loading and Unloading | 1 space/10,000 sq.ft. of floor area or a fraction thereof. | 0 Spaces provided |
| Site Visibility Triangles | Required for corner lots and screening (max. 2' height) within said SVT's | Waive requirements for corners (403 rd & Dobbins, 403 rd & Elliot, 395 th & Piedmont, and 399 th & Piedmont) |

There are numerous section/mid-section line roads along the boundaries of the subject parcel (provided on site plan) which the applicant is requesting a 0' setback requirement. This would allow maximizing use of solar panel arrays as the site would still require screening and provided landscape buffers. The screening would be requested to be chain link fencing (minimum 6' height) with a 1' barbwire attached. The applicant is proposing to include view obscuring material (slats or fabric on the fence between the existing residences to the west of the subject site and any future development parcels adjacent to the site. Parking and loading/un-loading areas are also being asked to be waived as there are no occupied structures anticipated for the facility. Lastly, Site Visibility Triangle and height for screening requirements are requested to be waived. The proposed driveways would include the SVT requirements where there is no need to enforce on other areas where access is not proposed.

Existing On-Site and Adjacent Zoning / Land Use:

7. On-site: Rural-190 / Vacant
- North: Rural-190 / Vacant and transmission lines
- East: Rural-190/ Vacant
- South: Arterial then Rural-190 (SUP)/ Elliot Road then Mesquite Solar energy facility
- West: Rural-190 / Single-Family Residences (Horseshoe Trails subdivision) & BLM vacant land

Utilities and Services:

- | | | |
|----|------------------|----------------------------------|
| 8. | Water: | Private wells |
| | Wastewater: | On-site septic systems |
| | School District: | Arlington #47/Buckeye Union |
| | Fire: | Buckeye Valley Fire District |
| | Police: | Maricopa County Sheriff's Office |

Adopted Plan:

9. **Old U.S. Highway 80 Area Plan** – Open Space (as approved through CPA200005).

Public Participation Summary:

10. The applicant complied with the Maricopa County Citizen Review Process with the required posting of the site and notification by first class mail to adjacent property owners within at least 300' of the subject parcel and interested parties. The applicant did not receive opposition to the proposal during the public participation process. Staff received no calls or letters of opposition/support as of the writing of this staff report. Lastly, the applicant provided staff with a "Citizen Participation Results Report" which explains that all requirements were met. There were several meetings held to discuss the project with the community and other agencies and stakeholders. The community open house was held on April 18, 2016 where concerns were outlined in the report with explanation of the applicant's responses.

Outstanding Concerns from Reviewing Agencies:

11. N/A

Staff Analysis:

12. Staff believes that the proposal provides justification for the requested CPA and Zone Change for the subject site. Solar generation facilities are an important land use in Maricopa County to provide sustainable energy for the region and other areas while providing jobs and revenue as well. The currently approved land use designation of 'Open Space' was approved with CPA200005 for groundwater rights needed to provide cooling water for the Mesquite Generating Station along with several other parcels in the area which effectively became "water properties". The CPA was amended in 2013 under CPA2013004 to bifurcate the Comprehensive Land Management Plan and create separate land management plans for the generating station and the water property. The applicant has provided justification in the narrative report stating the change of use is consistent with the previously approved cases and the Old U.S. Highway 80 Area Plan policies and goals. The land use proposed is consistent with the surrounding area which includes many other generation facilities in an otherwise remote area.
13. The requested IUPD variations offer relief from required standards for the specific land use (solar energy facility) which needs these changes to make the development work for the site and would limit the land use to the solar facility requested. The adequate

screening provided with fencing (including view obscuring material adjacent to developed parcels) and landscape would also provide a security feature for the site. The solar panels as part of the solar field are mentioned to range from 7'-10' (height) depending on the carrier where screening and buffers would be adequate to block most views of the facility. There would be the ability to include energy storage systems, electrical collection systems, onsite substation, and electrical lines to connect to the existing Mesquite Solar 1 facility if needed. There is no need for parking spaces or loading as the project anticipates utilizing the space within the existing Mesquite Solar 1 facility directly across Elliot Road. Only periodic maintenance of the facility would be needed. All other future proposed structures/building would be unmanned other than for maintenance.

14. Water would only be used for cleaning of the solar panels and controlling dust along the drive paths. Otherwise water is not needed for production of electricity. Per Maricopa County Department of Emergency Management (MCDEM) comments, the applicant has provided information that they will establish emergency evacuation plans for the site since it is within the Palo Verde Nuclear Generating Station. Water would be provided by private wells and wastewater through private septic systems. Fire protection services would be provided through the Buckeye Valley Fire District and a 'will serve' letter would be required once construction plans are submitted for review.
15. The applicant provided separate documentation to the narrative report which includes different and specific emergency response procedures (fire, earthquake, security, etc.), site traffic details, a Biological Site Assessment, Preliminary Spill Prevention Control and Countermeasure Plan for Construction, and Waste Disposal Plan which are summarized in the narrative report. These documents will not be included as attachments to the report but would be available in the case file if needed.
16. As mentioned previously, staff received a memo from the MCDEM (attached) where there were no proposed conditions of approval but recommends that the applicant review the requirements for hazardous waste, obtaining a 'will serve' letter from the fire department, and being within the vicinity of the Palo Verde Nuclear Generating Station. Lastly, staff received an email from the Maricopa County Sheriff's Office stating no objections to the requests.

Recommendations: (two motions - CPA2016002 & Z2016017)

17. For reasons outlined in this report, staff recommends the Commission motion for **Approval** with conditions 'a' - 'c' of **CPA2016002**.

Provided the following conditions are met:

- a. Development of the site shall be in conformance with the Narrative Report entitled "Mesquite Solar North Energy Project", consisting of 15 pages including the land use exhibit, dated stamped received June 9, 2016, except as modified by the following conditions.

- b. If the Board reverts the zoning back to Rural-190, this land use plan shall be considered for amendment to change the land use designation back to Open Space.
 - c. The granting of this change in use of the property has been at the request of the applicant, with the consent of the landowner. The granting of this approval allows the property owner to enjoy uses in excess of those permitted by the land use existing on the date of application, subject to conditions. In the event of the failure to comply with any condition of approval, the property shall change to the land use designation that existed on the date of application. It is, therefore, stipulated and agreed that such change due to the failure to comply with any conditions does not reduce any rights that existed on the date of application to use, divide, sell or possess the property and that there would be no diminution in value of the property from the value it held on the date of application due to such change.
18. For reasons outlined in this report, staff recommends the Commission motion for **Approval** with conditions 'a' – 'k' of **Z2016017**.

Provided the following conditions are met:

- a. Development of the site shall be in conformance with the Site Plan entitled, "Mesquite Solar North", consisting of 9 full-size sheets, stamped received June 10 2016 except as modified by the following conditions.
- b. Development of the site shall be in conformance with the Narrative Report entitled "Mesquite Solar North Project Narrative Report", consisting of 50 pages stamped received June 10, 2016, except as modified by the following conditions.
- c. There shall be a minimum 6' (h) chain link fence around the site where slats/fabric would be provided along existing development along the private property parcels to the west. If further development of the surrounding parcels are to occur in the future, slats/fabric will need to be provided along the perimeters of these parcels.
- d. The applicant/property owner shall submit a 'will serve' letter from The Buckeye Valley Fire District for fire protection services for the project site. A copy of the 'will serve' letter shall be required as part of the initial construction permit submittal.
- e. The following IND-2 IUPD standards shall apply:
 - 1. Front Yard Setback – 0'
 - 2. Side Yard Setback – 0'
 - 3. Rear Yard Setback – 0'
 - 4. Setbacks for Major Streets, Section Line Roads, and Highways – 25' for 395th Ave., 0' for 403rd Ave., 25' for Dobbins Rd. No service roads required for Elliot Rd.
 - 5. Setbacks for Mid-Section Line Roads – 0' for 399th Ave. No new interior roads along Mid-Section lines required within subject parcel

7. Setbacks for Local Streets – 0' for Piedmont Rd.
 8. Lot Coverage – 60% (not to include solar panels)
 9. Industrial Uses within an enclosed building – waive requirement
 10. Screening – Minimum 6' (h) chain link fence (with 1' height barb wire)
 11. Parking – 0 spaces provided
 12. Loading/un-loading – 0 spaces provided
 13. Site Visibility Triangles – waive corner lot and screening restrictions within these SVT requirements (403rd & Dobbins, 403rd & Elliot, 395th & Piedmont, and 399th & Piedmont)
- f. The following MCDOT conditions shall apply:
1. Major construction deliveries shall be avoided during shift changes at the Palo Verde Nuclear Plant.
 2. Reservation of right-of-way along the following roadway alignments shall be maintained:

Dobbins Road: 25 feet (south side);
395th Avenue: 25 feet (west side)
 3. "Emergency Access Only" signage shall be provided on the gate at the western site access along Elliot Road will require a permit from MCDOT.
 4. Any work within the right-of-way of Elliot Road will require a permit from MCDOT.
- g. The following Drainage conditions shall apply:
1. The Drainage Waiver submitted under application DRB2016001 must be approved.
 2. All retention basins must drain within 36 hours.
 3. Detailed Grading and Drainage Plans showing the new site improvements must be submitted for the acquisition of building permits.
- h. The following Flood Control District conditions shall apply:
1. A Floodplain Use Permit will be required concurrent with the required building permit(s) for the site.
 2. Pads for inverters and energy storage devices within the Zone A Floodplain must be elevated to the regulatory flood elevation.
 3. Slats in perimeter chain link fencing within the Zone A Floodplain shall be elevated to the base flood elevation,

4. All development and engineering design shall be in conformance with the most current version of the Floodplain Use Regulations for Maricopa County.
- i. Noncompliance with any Maricopa County Regulation shall be grounds for initiating a revocation of this Zone Change as set forth in the Maricopa County Zoning Ordinance.
- j. The property owner/s and their successor waive claim for diminution in value if the County takes action to rescind approval due to noncompliance with conditions.
- k. The granting of this change in use of the property has been at the request of the applicant, with the consent of the landowner. The granting of this approval allows the property to enjoy uses in excess of those permitted by the zoning existing on the date of application, subject to conditions. In the event of the failure to comply with any condition, the property shall revert to the zoning that existed on the date of application. It is, therefore, stipulated and agreed that either revocation due to the failure to comply with any conditions, does not reduce any rights that existed on the date of application to use, divide, sell or possess the property and that there would be no diminution in value of the property from the value it held on the date of application due to such revocation of the Zone Change. The Zone Change enhances the value of the property above its value as of the date the Zone Change is granted and reverting to the prior zoning results in the same value of the property as if the Zone Change had never been granted.

Presented by:
Reviewed by:

Ray Banker, Planner
Matt Holm, AICP, Planning Supervisor

Attachments:

Case maps (2 pages)
Vicinity maps (2 pages)
CPA Narrative Report w/land use exhibit (15 pages)
Zone Change Narrative report executive summary (8 pages)
Zone Change Site Plan (8 1/2" X 11" reduction, 9 pages)
Engineering Review comments (3 pages)
MCESD comments (2 pages)
MCSO email (1 page)
MCDEM memo (2 pages)



MARICOPA COUNTY

ONE
STOP
SHOP



Application Name: Mesquite Solar North

Legal Description

, TT1S RR6W 07

Applicant

MARILYN BURKE for SEP II LLC

Applicant Phone/Email

619.696.2681

MBURKE@SEMPRAUSGP.COM

Case Address

Parcel Primary:

401-47-039A

CPA2016002

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Gross Acres: 380 approx.

Map scale 1:16,800
Aerials Sep-Nov 2014

Supervisor District No.4

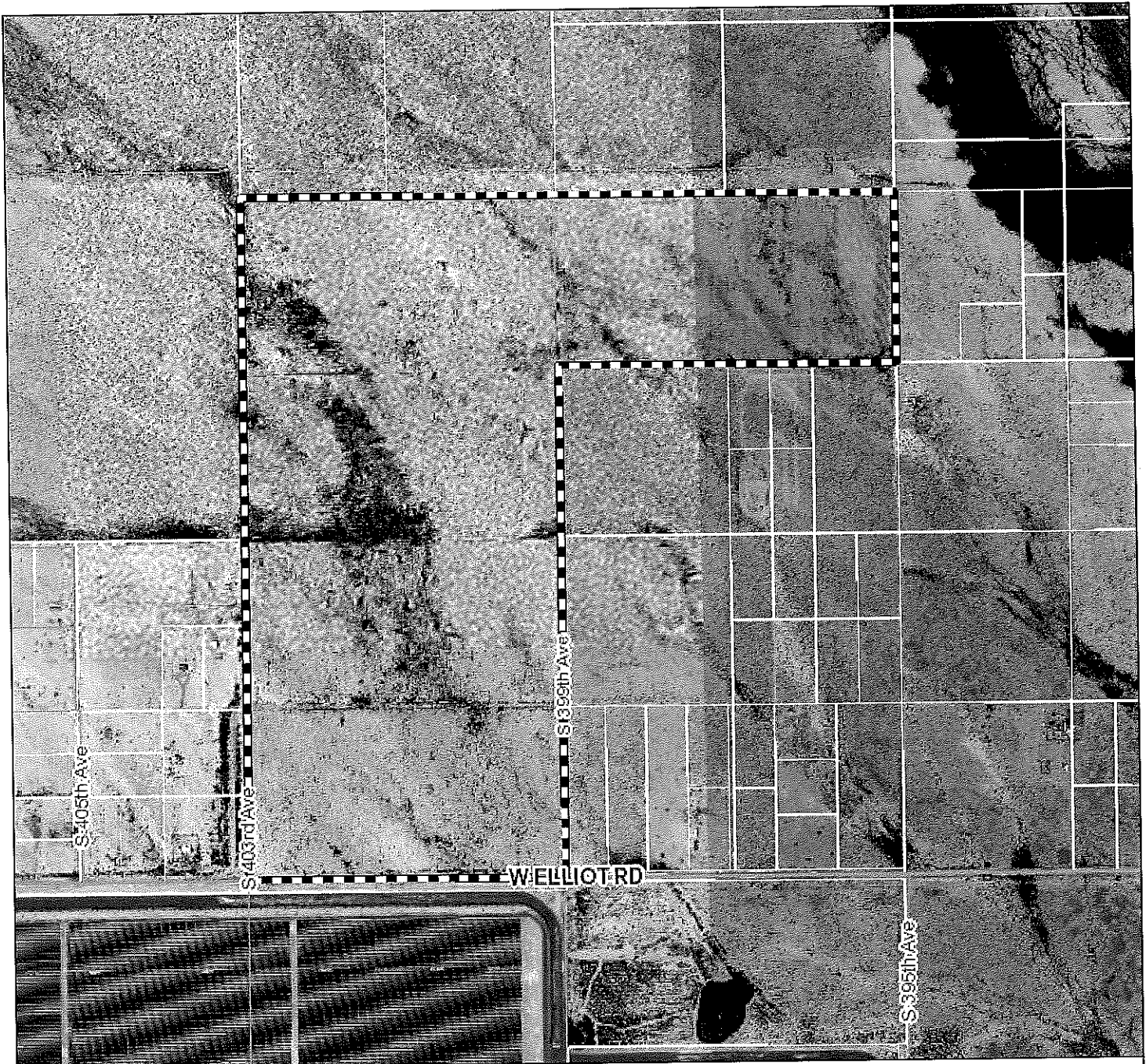
AMENDMENT OF OLD US HIGHWAY 80 AREA PLAN TO CHANGE THE LAND USE DESIGNATION FROM
'OPEN SPACE' TO 'UTILITY'





MARICOPA COUNTY

**ONE
STOP
SHOP**



Application Name: Mesquite Solar North

Legal Description

T01S R06W 7, TT1S RR6W 07

Applicant

MARILYN BURKE for SEP II LLC

Applicant Phone/Email

619.696.2681

MBURKE@SEMPRAUSGP.COM

Z2016017

Case Address

39903 W ELLIOT Rd
TONOPAH AZ 85354

Parcel Primary: 401-47-039A

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Gross Acres: 380 approx.

Map scale 1:16,800
Aerials Sep-Nov 2014

Supervisor District No. 4

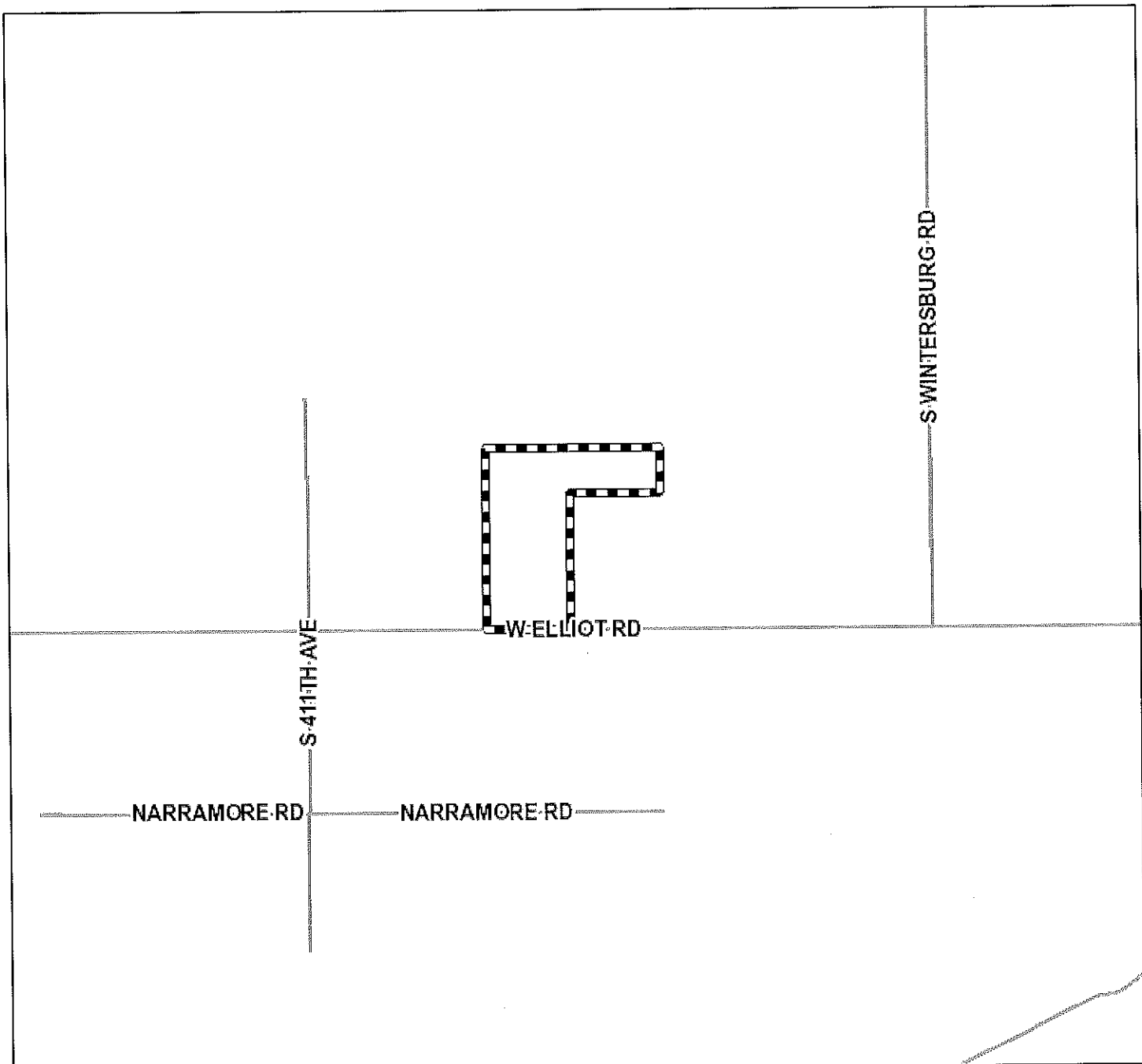
ZONE CHANGE FROM RU-190 TO IND-2 WITH A INDUSTRIAL UNIT PLAN OF DEVELOPMENT (IUPD)
OVERLAY





MARICOPA COUNTY

ONE
STOP
SHOP



Application Name: Mesquite Solar North

Legal Description
TT1S RR6W 07

Applicant
MARILYN BURKE for SEP II LLC

Applicant Phone/Email
619.696.2681
MBURKE@SEMPRAUSGP.COM

Case Address

Parcel Primary:
401-47-038A

CPA2016002

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Gross Acres: 380 approx.

Map scale 1:63,360
Aerials Sep-Nov 2014

Supervisor District No.4

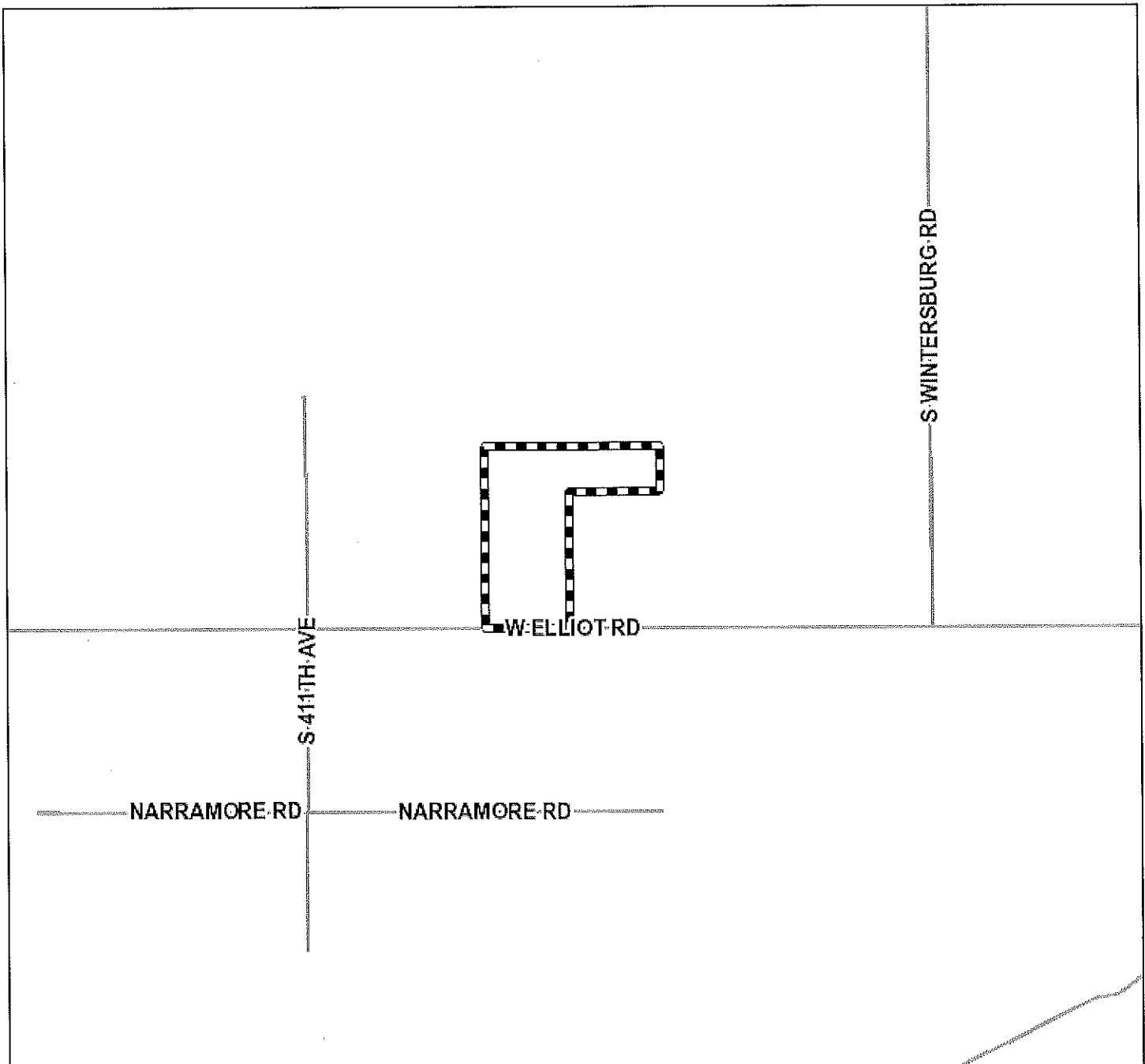
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MARICOPA COUNTY

**ONE
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SHOP**



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Legal Description

T01S R06W 7, TT1S RR6W 07

Applicant

MARILYN BURKE for SEP II LLC

Applicant Phone/Email

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MBURKE@SEMPRAUSGP.COM

Case Address

39903 W ELLIOT Rd
TONOPAH AZ 85354

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Z2016017

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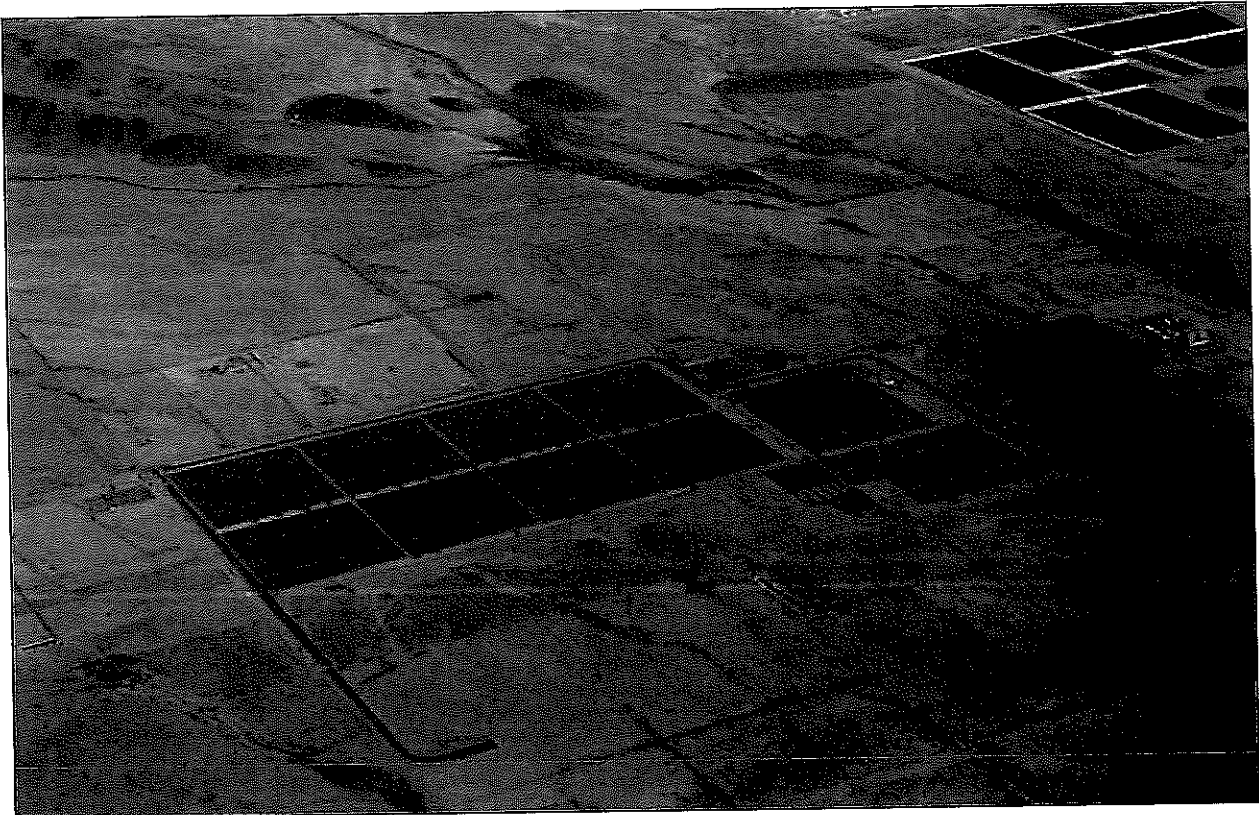


MARICOPA COUNTY

COMPREHENSIVE PLAN AMENDMENT

CPA2016002

MESQUITE SOLAR NORTH ENERGY PROJECT
REVISED APPLICATION PACKAGE



SUBMITTED BY



RESUBMITTED JUNE 7, 2016

CPA2016002

RECEIVED JUN 09 2016

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Mesquite Solar North Energy Project
Maricopa County Comprehensive Plan Amendment Resubmitted Application

EXECUTIVE SUMMARY

This request is to establish a land use designation of Utility to allow construction of solar energy generation and energy storage facilities on an approximately 380-acre parcel by:

- Amending the Old U.S. Highway 80 Area Plan Future Land Use Map from Open Space to Utility.

The proposed amendment area is 18 miles west of Buckeye, located north of the intersection of Elliot Road and 399th Avenue. Figures 1a and 1b show the current land use designation and the proposed land use designation of the amendment area..

The proposed Comprehensive Plan Amendment would accommodate development of solar power generation using photovoltaic technology, as well as energy storage facilities through the use of the Utility designation. Such proposed development will require application for a Zone Change through Maricopa County, and through such process will address all resource matters (environmental, traffic, cultural, air, etc.) pertinent to the specific nature of the proposed development.

The proposed request is consistent with the intent of the current Comprehensive Plan to “promote a growing, balanced, efficient, and diversified economy, consistent with available resources, that enhances quality employment opportunities, improves quality of life and is sensitive to the natural and cultural environment” as well as to “attract solar and other alternative energy research and development to Maricopa County.”

Future development consistent with this request will promote environmentally sensitive development of the land consistent with nearby uses, will not have a long-term impact on the local infrastructure, will comply with all applicable state and federal regulations to protect the environment, will require minimal water use when in operation, and will be a major capital investment in Maricopa County.

LOCATION AND LAND USE

The proposed amendment area subject to this request for amendment is located in Arlington Valley in unincorporated Maricopa County. The proposed amendment area is currently designated Open Space, within the Old U.S. Highway 80 Land Use Plan, but has a zoning designation of Rural-190. This request is to re-designate the 380 acre parcel as Utility to allow future solar energy generation and energy storage uses.

The Arlington Valley area, and the proposed amendment area in particular, are particularly well suited for energy related development. The area is generally level and located near existing infrastructure to support energy generation and storage uses. Adjacent land uses include rural residences to the west and east, open space and transmission lines to the north and northwest, and solar energy generation and a wildlife habitat area directly to the south/southwest. The Palo Verde Nuclear Generating Station, Arlington Valley Energy Facility, Mesquite Generating Station and the Mesquite Solar 1, 2 and 3 facilities are located within two miles of the amendment area. The proposed amendment area is currently zoned Rural-190 and is vacant with the exception of native vegetation, perimeter fencing, remnants of concrete irrigation ditches, abandoned water wells and associated abandoned well equipment.

ROADS AND TRANSPORTATION SYSTEMS

Mesquite Solar North Energy Project
Maricopa County Comprehensive Plan Amendment Resubmitted Application

Local access to the parcel will be provided via Elliot Road and Wintersburg Road (classified as minor arterials in the Old U.S. Highway 80 Plan). Elliot Road is a two lane, paved roadway. Wintersburg Road (also 2-lane, paved) provides a connection to the towns of Wintersburg and Tonopah, as well as a regional link to Interstate 10, which is the primary east-west transportation corridor in the area.

SUITABILITY WITH SURROUNDING LAND USES

Existing land uses surrounding the proposed amendment area consist of several rural single-family residences to the west and east; an 80-acre wildlife area to the immediate south; the Mesquite Solar 1, 2 and 3 facilities located to the south/southwest; and a transmission corridor to the north. Multiple major power generation facilities (designated Industrial land use) are located within two miles of the proposed amendment area, including the Palo Verde Nuclear Generating Station, Arlington Valley Energy Facility, Mesquite Solar 1, 2, and 3, and Mesquite Generating Station.

The table below summarizes the surrounding land uses and Comprehensive Plan/Zoning land use designations.

| PROPERTY LOCATION | EXISTING USE | COMPREHENSIVE PLAN DESIGNATION | EXISTING ZONING |
|-------------------|--|----------------------------------|-----------------|
| Subject Property | Vacant | Dedicated Open Space (380 acres) | Rural-190 |
| North | Transmission Line Corridor | Rural Residential | Rural-190 |
| East/West | Large lot single family residences and vacant | Rural Residential | Rural-190 |
| South | Mesquite Solar 1 and the Mesquite Power Wildlife Oasis | Power Plant | Industrial |

INTRODUCTION

The purpose of this request is to establish a land use designation of Utility to allow future solar energy generation and energy storage facilities on 380 acres of land located in Arlington Valley at the intersection of Elliot Road and 399th Avenue by:

Amending the Old U.S. Highway 80 Area Plan Future Land Use Map from Open Space to Utility.

BACKGROUND

The economics of PV solar energy have improved dramatically over the past several years, making solar energy a preferred electricity source. Solar energy offers the opportunity to protect the environment by avoiding the production of greenhouse gases and other air emissions, decreasing our dependence on fossil fuels, and reducing the need for construction of fossil fueled power plants. Solar energy also benefits the economy by generating jobs, business income, and tax revenue for both Maricopa County and Arizona as a whole. Because solar energy is

produced when demand for electricity is at its highest (during bright daylight hours), it helps to meet peak demand.

Since the production of solar power is intermittent in response to weather conditions and the demand for electricity can fluctuate throughout the day, energy storage technology helps to meet electricity demand whenever needed. Energy storage facilities manage the amount of power being supplied to customers, providing a continuous flow of clean energy during periods of high demand or when solar energy is unavailable. These facilities provide frequency regulation to maintain the balance between the network's load and power generated, therefore achieving a higher power quality and more reliable power supply. Energy storage allows the transmission system to respond effectively to disturbances and to operate more efficiently, thereby reducing the need for additional infrastructure while improving the stability and reliability of existing transmission and distribution systems.

REGIONAL SUITABILITY

Key to solar energy production is the availability and intensity of solar radiation. Arizona is particularly well suited for solar energy, with more than 300 days per year of sunshine and relatively intense solar radiation. As shown in Figure 2, the Arlington Valley is highly suitable for solar energy production because it has some of the highest solar radiation levels in the United States.

Similarly, the keys to siting utility-scale energy storage projects are proximity to the grid and the ability to serve areas of high electricity use or "load." The proposed amendment area meets both of these important criteria, as it is located in an area with significant electrical infrastructure that serves various load centers in the southwest U.S.

The proposed amendment area is uniquely suited for solar energy generation and energy storage development as it is located close to other industrial zoned properties, in close proximity to other energy infrastructure, and will accommodate technologies that do not emit greenhouse gases and use minimal amounts of water.

RELATED COUNTY APPROVALS

The proposed site was acquired by SEP-II in 2000 for groundwater rights needed to provide cooling water for the nearby Mesquite Generating Station. The site was part of several parcels purchased at the time for their water rights and collectively referred to as the water property. Through Comprehensive Plan Amendment (CPA) 200005, approved on December 6, 2000, the proposed site was designated Open Space and subject to the following stipulations:

- a. Development shall comply with the Area Plan Amendment entitled "Application to Amend the 1992 Tonopah Area Land Use Plan, Mesquite Generating Station" consisting of 54 pages plus appendices (Volume I and II), dated August 2000 and stamped received August 30, 2000 except as modified by the following stipulations. **Status:** Completed.
- b. Any request to change the land use designation from Industrial or Open Space as approved herein shall require an Area Plan Amendment with approval by the Board of Supervisors upon recommendation of the Planning and Zoning Commission. **Status:** Changes to land use designations have been, and will continue to be, processed as Comprehensive Plan Amendments with Maricopa County.

Mesquite Solar North Energy Project
Maricopa County Comprehensive Plan Amendment Resubmitted Application

- c. The land use designations shall not become effective until after the zoning clearance associated with the Special Use Permit application for Mesquite Generating Station (Z2000071) has been granted. **Status:** Zoning clearance was granted and the land use designations were put into effect.
- d. A Comprehensive Land Management Plan for the site shall be applied to the site as proposed in the applicant's narrative report. Annual reports for the progress and implementation of the plan shall be required within the Special Use Permit (Z2000071). **Status:** The Comprehensive Land Management Plan has been applied as described.
- e. The Industrial land use designation shall revert to the Rural Residential/High land use designation after 5 years unless construction is completed to the point that the plant is capable of operating at its rated capacity. An Open Space designation shall be placed on the remainder of the property (2,990 acres). At the expiration of the Special Use Permit (40 years from Board of Supervisors approval or any subsequent time extensions), the Industrial and Open Space designations shall remain on the properties. **Status:** Construction was completed within 5 years and the land use designations were put into effect.

In accordance with the original Comprehensive Land Management Plan, portions of the site were re-vegetated with native vegetation. With the exception of re-vegetation, the site has remained undisturbed since SEP-II purchased the property. In 2013, two additional parties acquired ownership interests in the water property. Mesquite Power, LLC and Salt River Project Agricultural Improvement and Power District (SRP) each acquired a 47.01% interest in the parcel. Although ownership is shared by SEP-II, Mesquite Power, LLC and SRP, SEP-II retains exclusive surface rights.

Future replacement of vegetation required by the Comprehensive Land Management Plan with solar energy generation at the proposed site was contemplated in CPA2013004, approved on August 21, 2013. CPA2013004 amended the stipulations of CPA200005 to bifurcate the original Comprehensive Land Management Plan to create separate land management plans for the Mesquite Generating Station and the water property, as well as allow vegetation removal from previously re-vegetated water property areas as necessary for construction and operation of solar generation facilities. Pursuant to stipulation g. of CPA2013004, "if an SUP for any given portion of the water property is approved for use of that portion for solar energy generation facilities, then upon start of construction of such solar energy generation facilities, compliance with the Comprehensive Land Management Plan shall not require any past, existing, or future re-vegetation of that portion except as provided under said SUP..." The stipulations of CPA20005 were amended through CPA2013004 to read as follows (amended stipulations are underlined):

- a. Development shall comply with the Area Plan Amendment entitled "Application to Amend the 1992 Tonopah Area Land Use Plan, Mesquite Generating Station" consisting of 54 pages plus appendices (Volume I and II), dated August 2000 and stamped received August 30, 2000 except as modified by the following stipulations. **Status:** Completed.
- b. Any request to change the land use designation from Industrial or Open Space as approved herein shall require an Area Plan Amendment with approval by the Board of Supervisors upon recommendation of the Planning and Zoning Commission. **Status:** Changes to land use designations have been, and will continue to be, processed as Comprehensive Plan Amendments with Maricopa County.
- c. The land use designations shall not become effective until after the zoning clearance associated with the Special Use Permit application for Mesquite Generating Station (Z2000071) has been granted. **Status:** Zoning clearance was granted and the land use designations were put into effect.

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- d. A Land Management Plan for the power plant site (400 acres) shall be applied as proposed in the applicant's document entitled "Land Management Plan, Mesquite Generating Station", consisting of (7) pages plus attachments A through C, dated April 25, 2013 and stamped received May 10, 2013, except as modified by the following stipulations. Annual reports for the progress and implementation of the plan shall be required within the Special Use Permit (Z200071). A Land Management Plan for the water property (2,990 acres) shall be applied as proposed in the applicant's document entitled "Land Management Plan, Water Property", consisting of seventeen (17) pages plus attachments A through H, dated April 25, 2013 and stamped received May 10, 2013, except as modified by the following stipulations. Status: The Land Management Plans have been applied and annual reporting is addressed in SUP Z2000071.
- e. The Industrial land use designation shall revert to the Rural Residential/High land use designation after 5 years unless construction is completed to the point that the plant is capable of operating at its rated capacity. An Open Space designation shall be placed on the remainder of the property (2,990 acres) except as provided in CPA200807. At the expiration of the Special Use Permit (40 years from Board of Supervisors approval or any subsequent time extensions), the Industrial and Open Space designations shall remain on the properties. Status: Construction was completed within 5 years and the land use designations are in place except as provided in CPA200807 and CPA200910.
- f. The applicant shall participate in the development of a wildlife facility or enhanced wildlife habitat on a portion of their water property consistent with their Land Management Plan, which may include habitats, breeding programs, wildlife rehabilitation, a research/educational facility, or other wildlife enhancements as agreed to and developed in conjunction with Wildlife for Tomorrow, the Arizona Game and Fish Department, and/or other similar organizations. The applicant shall make available a minimum of (1) 300 acres of land and \$250,000 or (2) \$500,000 in combined land value and expenditures. Planning and Development will determine if the facility, itself, requires a Special Use Permit subject to public hearing and Board of Supervisor approval. The facility shall be operational within seven years of Board of Supervisor approval on December 6, 2000, or the applicant shall pay \$500,000 to fund West Maricopa County Regional Park acquisitions, trails, facility enhancements and maintenance. The applicant shall submit an annual written report outlining the status of the water property until such time as the power plant site Special Use Permit (Z200071) expires. The first report shall be submitted on December 6, 2001. The status report shall address implementation/progress of the Comprehensive Land Management Plan (inclusive of the wildlife aspect referred to above). Status: The Mesquite Wildlife Oasis and associated outdoor education program was developed in conjunction with Wildlife for Tomorrow and the University of Arizona and was operational within the required timeframe, Annual reporting is addressed in SUP Z2000071.
- g. If a Special Use Permit (SUP) for any given portion of the water property is approved for use of that portion for solar energy generation facilities, compliance with the Comprehensive Land Management Plan shall not require any past, existing, or future re-vegetation of that portion except as provided under said SUP, and instead the following land management conditions shall take effect:
 - 1. All re-vegetated areas within the given portion of the water property are permitted to undergo vegetation removal as necessary for construction and operation of the solar generation facilities.
 - 2. Measures to protect Centennial Wash shall be implemented as provided in the approved SUP for the solar energy generation facilities. These measures shall include soil stabilization and drainage control features.

3. Measures to control noxious weeds shall be implemented as provided in the approved SUP for the solar energy generation facilities.
4. Measures to control blowing dust and wind erosion shall be implemented as provided in the approved SUP for the solar generation facilities.

Status: All solar development located on portions of the water property comply with the project specific SUP and the conditions noted above.

This request to change the land use designation of the proposed site from Open Space to Utility to allow construction of solar energy generation and associated energy storage facilities is consistent with stipulations b. and g. of CPA2013004 and will not require any modification of the approved stipulations shown above. Currently, approximately 1,970 acres of the original approximately 2,990 acre water property have been re-designated from Open Space to Industrial for solar energy development.

COMPREHENSIVE PLAN AMENDMENT CRITERIA

This section of the request for amendment responds to the Comprehensive Plan Amendment Criteria, Section 3, of the Comprehensive Plan Amendment Application Checklist.

DOES THE AMENDMENT CONSTITUTE AN OVERALL IMPROVEMENT TO THE COMPREHENSIVE PLAN AND IS NOT SOLELY FOR THE GOOD OR BENEFIT OF A PARTICULAR LANDOWNER OR OWNERS AT A PARTICULAR POINT IN TIME?

This amendment will allow for the potential future development of solar energy generation and energy storage facilities. Solar energy generation facilities located on the parcel would generate jobs, business income, and tax revenue for Maricopa County and Arizona. In addition, solar energy helps protect the environment by avoiding the production of greenhouse gases and other air emissions. Because solar energy is produced during bright daylight hours, when demand for electricity is at its highest, it helps to meet peak energy demand.

Since the demand for electricity can fluctuate throughout the day, energy storage technology helps to meet electricity demand whenever needed. Energy storage facilities manage the amount of power being supplied to customers, providing a continuous flow of clean energy during periods of high demand or when solar energy is unavailable. These facilities provide frequency regulation to maintain the balance between the network's load and power generated, therefore achieving a higher power quality and more reliable power supply. Energy storage allows the system to respond effectively to disturbances and to operate more efficiently, thereby reducing the need for additional infrastructure while improving the stability and reliability of existing transmission and distribution systems.

Allowing additional solar energy generation and energy storage development within close proximity to the existing electrical transmission system of Mesquite Solar 1 to the south would reduce the amount of new transmission corridors required across lands, as compared to sites further away. Also, since the proposed amendment area is along Elliot Road, there is no need to develop new roadways as compared to sites further from established transportation networks. Amending the Plan to accommodate additional renewable energy development in the

area would be an overall improvement to the Plan, resulting in additional energy development in an area that already has a cluster of energy projects and infrastructure.

DOES THE AMENDMENT ADVERSELY IMPACT ALL OR A PORTION OF THE PLANNING AREA PER THE FOLLOWING CRITERIA: DOES THE AMENDMENT ALTER ACCEPTABLE LAND USE PATTERNS TO THE DETRIMENT OF THE PLAN?

This proposed amendment supports and furthers the following Old U.S. Highway 80 Area Plan Land Use Element Policies:

POLICY L1.3.3: PROMOTE EMPLOYMENT AND LIGHT INDUSTRIAL USES NEAR THE RAILROAD TRACKS AND POWER PLANTS.

The proposed amendment area is within ¼ mile of the nearest existing power plant use (Mesquite Solar 1 to the south) and within 3 miles of the nearest railroad tracks. A future solar energy development project could employ up to 500 construction workers at peak; and the potential energy storage facility could contribute an additional approximately 50 workers at peak.

POLICY L1.3.5: ENCOURAGE ADEQUATE BUFFERS BETWEEN LAND USES TO PROTECT ADJACENT OR AFFECTED RESIDENTS FROM POTENTIALLY INCOMPATIBLE USES.

Solar energy generation and energy storage facilities in the proposed amendment area are compatible with rural land uses and will include vegetation along Elliot Road that will obscure views from local traffic. From the center of Elliot Road, the nearest solar panels would be 226 feet away. The proposed amendment area would include the use of fencing with slats or privacy fabric to provide a visual buffer between the project and adjacent parcels that are developed for residential use.

Additionally, the following Environmental/Environmental Effects and Economic Development policies are supported by this amendment:

POLICY E1.3.1: SUPPORT AND ENCOURAGE LOCAL AND REGION-WIDE EFFORTS TO PRESERVE AIR QUALITY.

Unlike conventional, fossil-fueled generation sources, solar energy generation and energy storage avoid the production of greenhouse gases and other air emissions.

POLICY E1.4.1: SUPPORT NATURAL DRAINAGE CORRIDORS AND PROTECTIVE BUFFERING TECHNIQUES ALONG SIGNIFICANT WASH SYSTEMS WHERE NEW DEVELOPMENT IS PROPOSED, TO PROVIDE FLOOD CONTROL, PRESERVE WILDLIFE CORRIDORS, AND PROTECT OPEN SPACE.

This request would not require significant changes in the natural drainage that flows through the site. A FEMA regulatory 100-year floodplain, Zone A, exists across a portion of the site. Maricopa County required flood control measures will be incorporated into any project design.

Mesquite Solar North Energy Project
Maricopa County Comprehensive Plan Amendment Resubmitted Application

The proposed amendment area is not currently functioning as a wildlife corridor as it has been historically fenced. A biological assessment was conducted in March 2016 in support of Zone Change #Z2016017, and it concluded that no critical habitat would be impacted within this amendment area. As such, the proposed amendment would not materially change the use of this parcel for wildlife movement.

The proposed amendment area is located in a region dominated by open space, sparse rural residential buildings and energy infrastructure. The current open space would be altered by the addition of solar generation and energy storage and facilities; however, the overall open space in the region and the County would not be significantly impacted.

POLICY ED1.1.1: ENCOURAGE RURAL TYPE, LIGHT INDUSTRIAL DEVELOPMENT NEAR PALO VERDE AND ALONG THE RAILROAD.

The proposed amendment area is currently unused and undeveloped open space. The solar and energy storage land uses proposed for the area are not expected to generate significant noise, traffic, or visual impacts, maintaining compatibility with rural and energy generation land uses with the Arlington Valley area.

DOES THE PROPOSED AMENDMENT REQUIRE PUBLIC EXPENDITURES FOR LARGER AND MORE EXPENSIVE INFRASTRUCTURE OR REQUIRE PUBLIC IMPROVEMENTS TO ROADS, SEWER, OR WATER SYSTEMS THAT ARE NEEDED TO SUPPORT PLANNED LAND USES?

Energy generation facilities in the proposed amendment area will not require public improvements to roads, sewer, or water systems, nor will they require public expenditures for larger and more expensive infrastructure. No improvements to local road infrastructure will be necessary due to the minimal traffic demands expected.

DOES THE PROPOSED AMENDMENT ADVERSELY IMPACT PLANNED USES BECAUSE OF INCREASED TRAFFIC?

A traffic analysis was prepared in February 2016. Based on the low amount of operational traffic, adverse traffic impacts are not anticipated.

DOES THE PROPOSED AMENDMENT AFFECT THE LIVABILITY OF THE AREA OR THE HEALTH OR SAFETY OF PRESENT AND FUTURE RESIDENTS?

Energy generation facilities in the proposed amendment area would not affect the livability of the area or the health or safety of residents. Solar energy generation and energy storage facilities would have minimal impact on the existing land uses of adjacent properties. The subject property is undeveloped former farmland bordered by an electrical transmission corridor to the north, with some rural, large residential lots to the west and east of the proposed amendment area. An active solar energy generation facility is located immediately to the south of the proposed amendment area and residents are aware of its presence. These residents are also aware of the nearby conventional energy generation units, and the nearby nuclear power plant. Further, solar energy generation and energy storage facilities do not produce greenhouse gas emissions and solar panels are not invasive to the

environment. They do not produce noise pollution or odors that may affect the livability of the area or the health or safety of present and future residents.

DOES THE PROPOSED AMENDMENT ADVERSELY IMPACT THE NATURAL ENVIRONMENT OR SCENIC QUALITY OF THE AREA IN CONTRADICTION TO THE PLAN?

Solar energy generation facilities in the proposed amendment area will not result in emissions, noise, light pollution, hazardous wastes, or wastewater that will have significant impacts on existing air, ambient noise, dark skies, groundwater quality, or biological resources.. The visual impacts of a solar generation and energy storage facility will be relatively small because of its low profile, and because the photovoltaic solar panels absorb light and do not cause glare. Solar panel heights are approximately 10 feet in height; lower than most other types of land development facilities. Energy storage systems are typically housed in shipping containers or unoccupied enclosures approximately 15 feet in height. This request for amendment will not adversely impact the natural environment or scenic quality of the area.

CONFORMANCE WITH GOALS AND POLICIES

Maricopa County has a number of area land use plans that work in concert with the Comprehensive Plan. Based on the location of the proposed development, this amendment is proposed with respect to the Old U.S. Highway 80 Area Plan elements, and is informed by the plan's goals, objectives, and policies in the open space, land use, environmental planning, circulation, water resources, growth, and cost of development elements. The proposed amendment is consistent with those goals, objectives, and policies as described in the previous sections.







The proposed request is consistent with the intent of the current Comprehensive Plan to "promote a growing, balanced, efficient, and diversified economy, consistent with available resources, that enhances quality employment opportunities, improves quality of life and is sensitive to the natural and cultural environment."

MESQUITE SOLAR NORTH

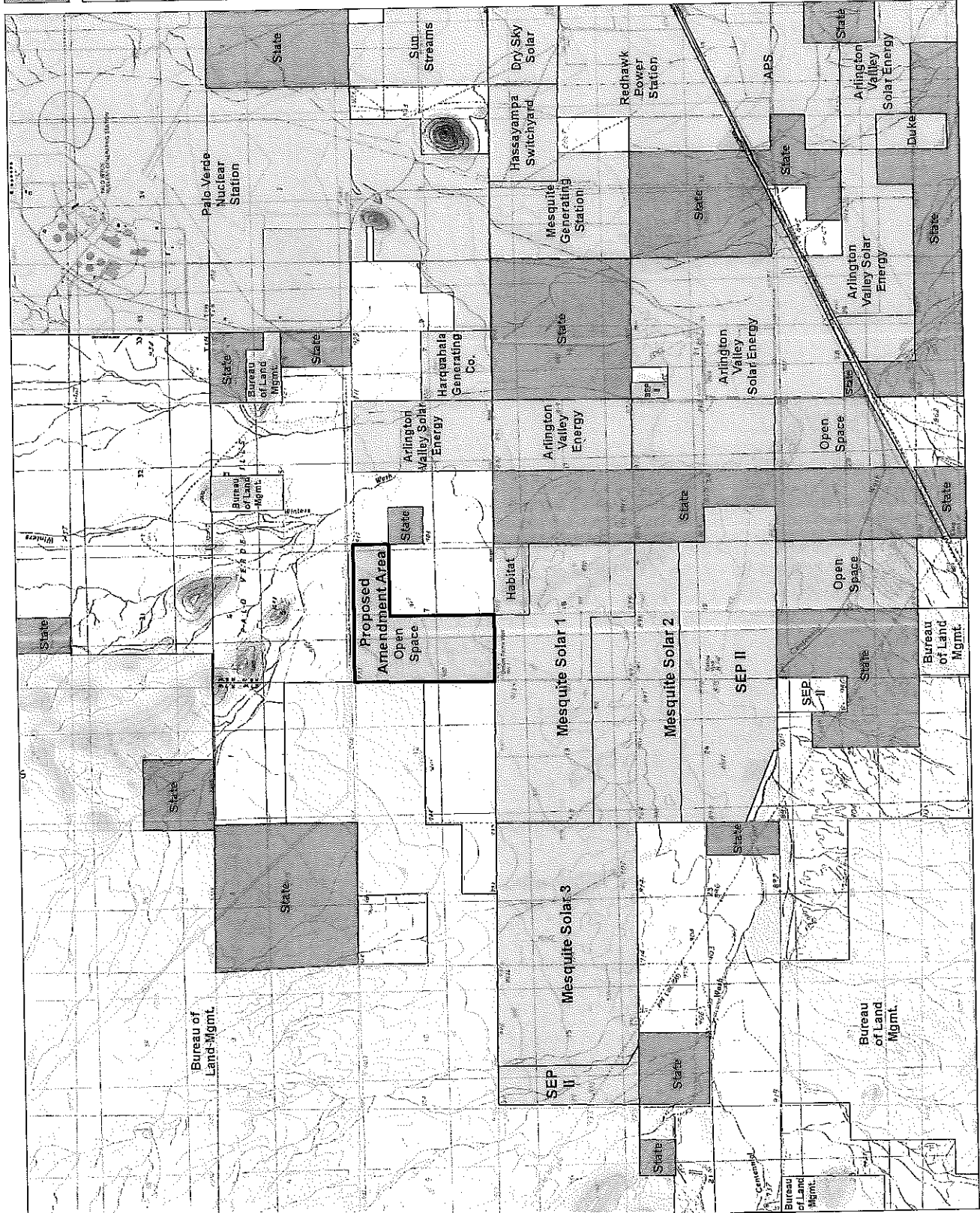
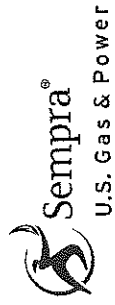
Figure 1a

Proposed Amendment Area and
Surrounding Land Use Current
Designations

Legend

-  Proposed Amendment Area
-  Mesquite Solar
-  BLM
-  Open Space
-  Private
-  State Trust

Map: MSNorth_Fig1ProjectSiteCPA_BL
Date: 3/9/2016










MESQUITE SOLAR NORTH

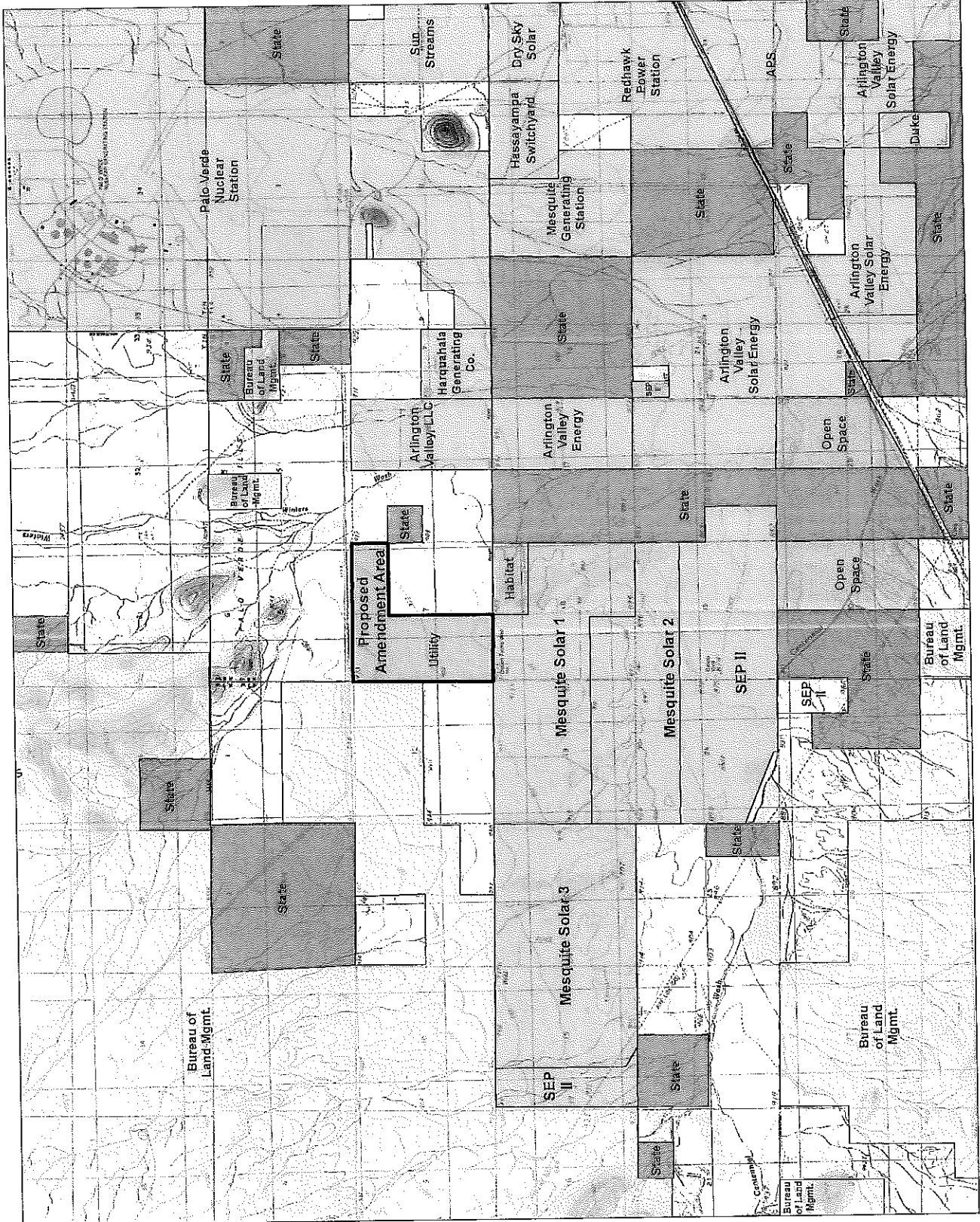
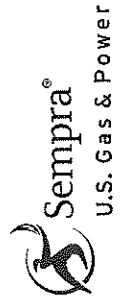
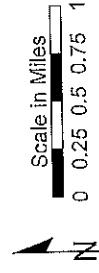
Figure 1b

Proposed Amendment Area
Land Use Designation and
Surrounding Land Use

Legend

-  Proposed Amendment Area
-  Mesquite Solar
-  BLM
-  Open Space
-  Private
-  State Trust
-  Utility

Map: MSNorth_Fig1ProjectSiteCPA_BL
Date: 5/19/2016

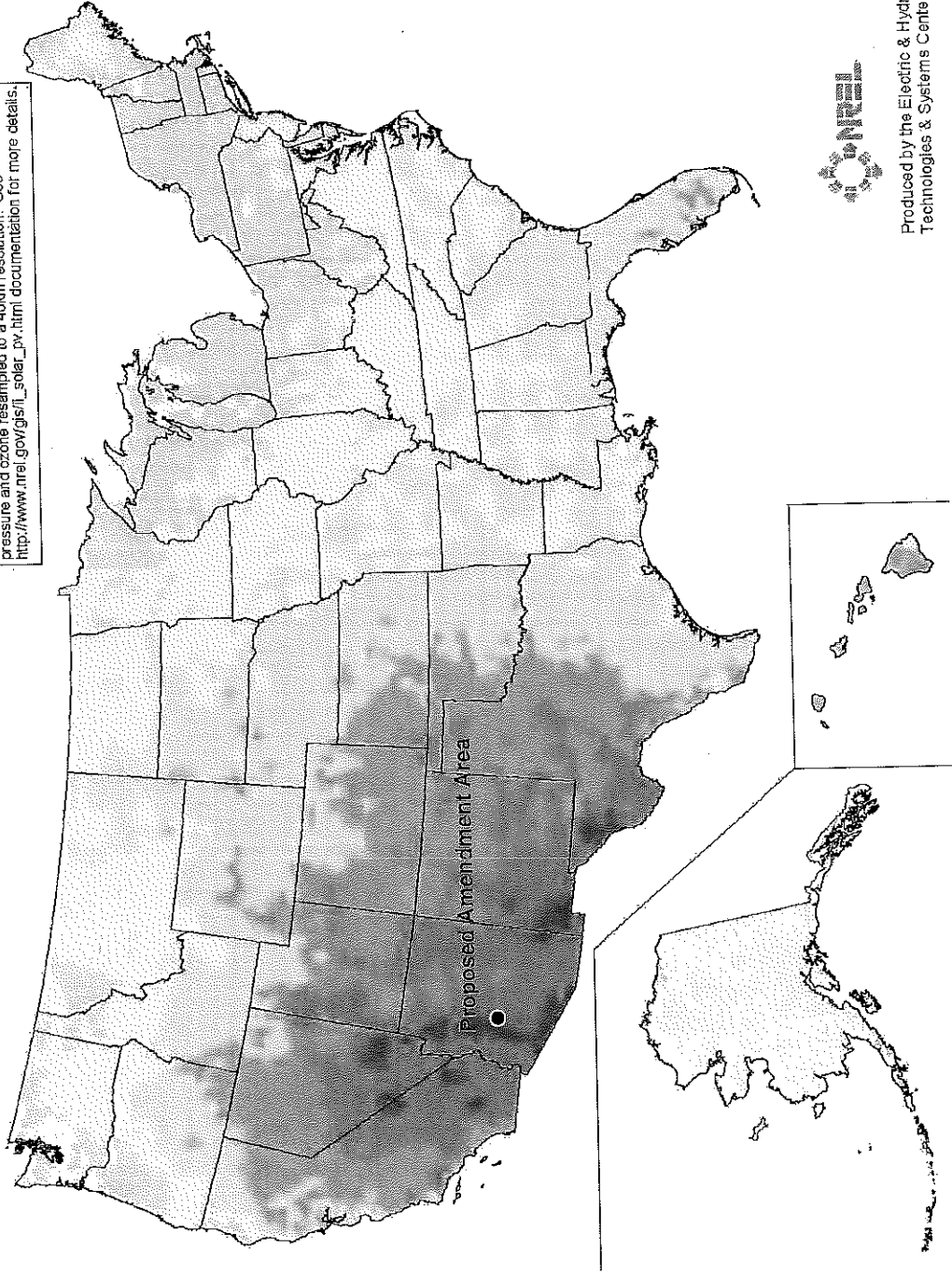


MESQUITE SOLAR NORTH

Annual

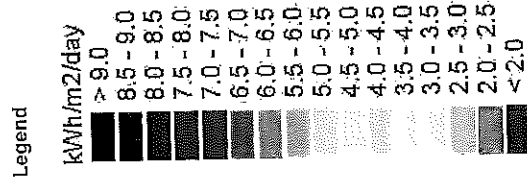
PV Solar Radiation
(Flat Plate, Facing South, Latitude Tilt)

Model estimates of monthly average daily total radiation using inputs derived from satellite and/or surface observations of cloud cover, aerosol optical depth, precipitable water vapor, albedo, atmospheric pressure and ozone resampled to a 40km resolution. See http://www.nrel.gov/gis/solar_pv.html documentation for more details.

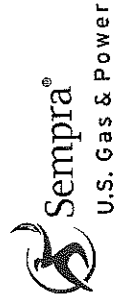


Produced by the Electric & Hydrogen
Technologies & Systems Center - May 2004

Figure 2
Solar Radiation
and
Proposed Amendment
Area Location



Map: MSNorth_Fig2SolarRadiationCPA_BL
Date: 2/8/2016

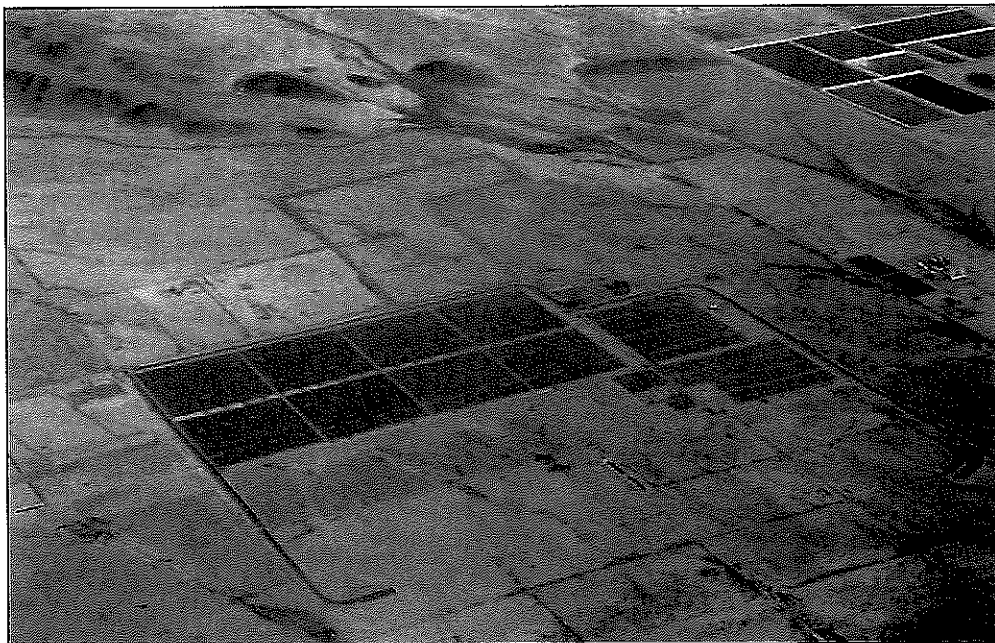


MARICOPA COUNTY

Zone Change and Industrial Unit Plan of Development Overlay Revised Application Z2016017

MESQUITE SOLAR NORTH ENERGY PROJECT

EXECUTIVE SUMMARY



SUBMITTED BY



July 20, 2016

Z2016017

RECEIVED JUL 20 2016

PROJECT APPLICANT, NAME AND LOCATION

SEP II, LLC is developing the Mesquite Solar North Energy Project. SEP II, LLC, the project applicant, is a wholly-owned subsidiary of Semptra Renewables, LLC. Semptra Renewables is part of Semptra U.S. Gas & Power, a leading developer of clean energy solutions in markets throughout the U.S. with a focus on zero- and low-emission fuels. Semptra U.S. Gas & Power has developed and built some of the largest photovoltaic solar facilities in North America and, along with its affiliates and joint-venture partners, has facilities in operation in Nevada, Arizona, and California that collectively generate 718 megawatts (MW) of solar power.

The project site comprises approximately 380 acres located immediately north of Elliot Road, southwest of Wintersburg, Maricopa County, Arizona. The site includes a portion of Section 7 of Township 1 South, Range 6 West, of the Gila and Salt River Meridian. The property is Assessor Parcel Number 401-47-039A.

PURPOSE OF REQUEST

ZONE CHANGE

This request is for a Zone Change from Rural-190 (RU-190) to Light Industrial (IND-2) with an Industrial Unit Plan of Development (IUPD) overlay to allow for future solar development within the project site, and to allow for the complementary use of an energy storage facility within the property.

PROPOSED FACILITY

SOLAR ENERGY FACILITY

The proposed project is a photovoltaic (PV) solar energy generation facility. The facility will consist of (a) a solar field of PV panels (either fixed or single-axis) mounted on steel structures, (b) an electrical collection system that aggregates the output from the PV panels and converts the electricity from direct current (DC) to 34.5 kV alternating current (AC), (c) a potential shared substation where all of the facility output is combined and transformed to a voltage of 230 kV, (d) civil infrastructure including driveways, drainage features, landscaping and fencing, and (e) a potential energy storage facility. The facility will employ PV panels that absorb sunlight and directly produce electricity without use of heat transfer fluid or cooling water. The facility will operate year-round, producing electric power whenever the sun is shining. When fully developed, the facility will produce up to approximately 60 MW of clean solar power.

The facility may set aside approximately 7.5 acres of land for an optional electrical substation located in the southeast portion of the site. The project will include a power line that carries the produced power to an existing switchyard located at the Mesquite Solar 1 facility directly south of the proposed project.

ENERGY STORAGE DEVELOPMENT

The project may have the opportunity to implement energy storage facilities onsite in addition to the PV solar facility. Demand for electricity fluctuates throughout the day, and technology to store electrical energy so it can be available to meet demand whenever needed is an important factor in electricity distribution. Energy storage facilities convert electricity to a storable form and reserve it in various mediums; then the banked energy can be converted back into electrical power when needed. Energy storage facilities manage the amount of power required to supply customers at times when need is greatest, during peak load. Energy storage facilities aid in meeting peak electrical load demands, provide time varying energy management, alleviate the intermittence of renewable source power generation, and improve power quality and reliability. An area (approximately 7.5 acres) has been set aside for both an optional energy storage facility and/or an optional electrical substation within the project boundaries.

LAND USE ON THE PROJECT SITE AND SURROUNDINGS

The project site consists of former farmland and vacant land, much of which has been re-vegetated with desert flora pursuant to the Land Management Plan referenced in Comprehensive Plan Amendment (CPA) 2013004. A CPA application for the project site will be processed concurrently with this application. The site is otherwise vacant with the exceptions of abandoned groundwater wells and associated structures.

Existing land uses surrounding the project site consist of several rural single-family residences to the west and east; the 80-acre Mesquite Power Wildlife Oasis to the immediate south; Mesquite Solar 1 located to the south; and an electrical transmission corridor to the north. Three additional major power generation facilities (designated Industrial land use) are located within two miles of the project site, including the Palo Verde Nuclear Generating Station, Arlington Valley Energy Facility, and Mesquite Generating Station.

WAIVER REQUESTS

This application includes an IUPD overlay to request a waiver of certain County zoning requirements, such as lot coverage, setbacks, parking and fencing requirements, as well as certain drainage provisions, that are not compatible with the unique design of the energy project.

PROJECT BENEFITS

The economics of PV solar technology have improved dramatically over the past several years, making solar energy a preferred electricity source. Solar energy offers the opportunity to protect the environment by avoiding the production of greenhouse gases and other air emissions, decreasing our dependence on fossil fuels, and reducing the need for construction of fossil fueled power plants. Solar energy also benefits the

economy by generating jobs, business income, and tax revenue for both Maricopa County and Arizona as a whole. Because solar energy is produced when demand for electricity is at its highest (during bright daylight hours), it helps to meet peak demand.

Since the demand for electricity can fluctuate throughout the day, solar energy storage technology helps to meet electricity demand whenever needed. Energy storage facilities manage the amount of power required to supply customers at times when need is greatest, providing a continuous flow of clean energy during periods of high demand or when solar energy is unavailable. These facilities provide frequency regulation to maintain the balance between the network's load and power generated, therefore achieving a higher power quality and more reliable power supply. Energy storage allows the transmission system to respond effectively to disturbances and to operate more efficiently, thereby reducing the need for additional infrastructure while improving the stability and reliability of existing transmission and distribution systems.

REQUIRED APPROVALS

PRIOR COUNTY APPROVALS

The proposed project site was acquired by SEP II in 2000 for groundwater rights needed to provide cooling water for the nearby Mesquite Generating Station. The site was part of several parcels purchased at the time for their water rights and collectively referred to as the water property. Management of the proposed project site is currently subject to stipulations contained in CPA 2013004, approved on August 21, 2013, and an associated Land Management Plan. All previous stipulations related to the water property contained in the original Special Use Permit (SUP) for Mesquite Generating Station (Z200071), and subsequent amendments, were transferred to CPA 2013004. Portions of the proposed project site were re-vegetated with native vegetation as described in the Land Management Plan. With the exception of re-vegetation, the site has been undisturbed since SEP II purchased the property. In 2013, two additional parties acquired ownership interests in the water property. Mesquite Power, LLC and Salt River Project Agricultural Improvement and Power District (SRP) each acquired a 47.01% interest in the parcel. Although ownership of the proposed project site is shared by SEP II, Mesquite Power, LLC, and SRP, SEP II retains exclusive surface rights.

Future replacement of the vegetation required by the Land Management Plan with solar energy generation at the proposed site was contemplated in CPA 2013004. Pursuant to stipulation g. of CPA 2013004, "if an SUP for any given portion of the water property is approved for use of that portion for solar energy generation facilities, then upon start of construction of such solar energy generation facilities, compliance with the Land Management Plan shall not require any past, existing, or future re-vegetation of that portion except as provided under said SUP..."

CONCURRENT APPROVAL PROCESSES

The project is subject to a concurrent CPA request to change the existing land use designation from Open Space to Utility. A general CPA application will be presented to Maricopa County Planning and Development Department for review and processing. The re-designation would be subject to public hearings and comment, and discretionary approval by the Maricopa County Board of Supervisors. The project will also request a Drainage Waiver to waive the 100-year, 2-hour retention volume, and 6-inch maximum depth of flooding over Elliot Road from the 100-year rain event requirements. The Drainage Waiver application would be processed concurrently with the Zone Change and CPA applications. In addition to the County permitting requirements, the project may need to engage several other local, state and federal agencies prior to construction in order to comply with applicable regulations. Any potential modifications required at Mesquite Solar 1 related to the proposed project would be reviewed with Maricopa County Planning and Development Department and processed independently.

CONSTRUCTION

PROJECT SCHEDULE

Construction planned on Mesquite Solar North consists of civil infrastructure including (a) the site entrance and perimeter and internal driveways, (b) retention basins meeting Maricopa County requirements, (c) security fencing, (d) the proposed substation, (e) solar panels and related equipment; and (f) the potential energy storage facility. During construction, equipment will be placed in-service at the completion of each block of PV panels. This in-service timing is critical because PV panels become energized as soon as they are exposed to sunlight, and a delay in power flow would waste valuable energy production and may cause the need for extraordinary construction measures to avoid damage to the PV panels. Construction of the energy storage facility may be concurrent with development of the proposed solar field, or it may occur at a later date.

CONSTRUCTION WORKFORCE AND WORKSPACE

Construction of the solar facility is expected to require a peak workforce of approximately 500 management, supervisory, and craft workers. Construction of the energy storage facility would require approximately 50 management, supervisory, and craft workers. Parking, temporary office trailers, a temporary warehouse, and equipment laydown areas will be located within or nearby each respective area during construction. A temporary warehouse may be up to approximately 40 feet in height and will be removed upon construction completion and contractor demobilization.

EQUIPMENT INSTALLATION

Construction of the solar field will include (a) installation of the electrical collection system, (b) installation of PV panel support system (fixed tilt or pivoting), and (c) installation of PV panels. Construction of an energy storage system would be confined to a small development footprint. Either standardized shipping containers or an unoccupied structure(s) would be utilized to house the storage technology. All necessary conduit and support infrastructure would be installed prior to the delivery of the energy storage equipment. Once a technology has been selected, detailed plans would be provided to Maricopa County as part of the building permit process.

OPERATION

FACILITY MAINTENANCE

SOLAR FIELD

PV facilities contain few or no moving parts (depending on the support system, either pivoting or fixed tilt) and have limited maintenance requirements. Maintenance activities consist of checking electrical performance parameters that are not transmitted to the administration building for remote monitoring, performing periodic inspections and maintenance of transformers, inverters and tracker systems, responding to any problems detected by remote monitoring, conducting weed abatement and dust control activities, cleaning PV panels, and maintaining driveways. Water may be used for cleaning PV panels and controlling dust, but no water is used by the facility for the production of electricity. No major equipment is anticipated to be required for maintenance of the facility except as necessary for periodic re-grading of driveways and stormwater retention basins.

ENERGY STORAGE

Energy storage facilities contain virtually no moving parts outside of their Heating Ventilation and Air Conditioning systems, and have limited maintenance requirements. Maintenance activities will consist of checking electrical performance parameters, performing periodic inspections and maintenance of switchgear and transformers, responding to any problems detected by remote monitoring, and maintaining driveways.

The inverter vendor will specify the suggested annual preventative maintenance. Work during the annual preventative maintenance includes visual inspections, replacement of inverter air filters, and other replacement of defective parts, as necessary.

To ensure safe and efficient operation of the energy storage system, various factory acceptance tests are conducted on a test unit before the system is delivered to the site. Once deployed, the system's safety

features are regularly checked as part of the manufacturer's warranty program. Additionally, the system has 24/7 monitoring to ensure safe operation.

SITE SECURITY

Site security would be provided by periodically driving along the site perimeter security fence.

COMMUNITY FACILITIES AND SERVICES

Construction of the solar facility is expected to require a peak workforce of approximately 500 workers; construction of the energy storage facility is expected to require a peak workforce of approximately 50 workers. As this workforce is expected to draw upon the existing labor pool in western Maricopa County, construction will not significantly affect area facilities and services.

Operation of the facility will be managed, monitored, and controlled by staff working out of the Mesquite Solar 1 Operations and Maintenance building. The staff count will not exceed 24 full-time staff, which will not affect community facilities and services.

PUBLIC UTILITIES AND SERVICES

No utility extensions are planned for the project, and no new or additional public services are anticipated as a result of the project. Electric and telecommunication utilities are present in the project vicinity to support scattered rural residences. Domestic water in the project vicinity is supplied via private wells. No sewer services exist in the project vicinity, and sanitary waste is managed by the use of private septic systems.

The project site would be served by an Arizona Public Service electric distribution circuit providing power to groundwater well pumps, and substation and energy storage facility auxiliary loads.

The Maricopa County Sheriff's Office provides police protection to the area. The project site is located within the District II patrol area, and the nearest substation is located at 920 E. Van Buren Avenue in Avondale. The Buckeye Valley Fire District provides fire protection and emergency response services to the area.

ENVIRONMENTAL RESOURCES

The proposed project was evaluated for impacts to environmental resources, including: cultural, biological, air quality, water, visual resources and noise. Please refer to the project Narrative Report for detailed analyses of these resources. Highlights of Applicant's mitigation proposals include the following:

- Conducting pre-construction sweeps for burrowing owl;
- Minimizing facility lighting to minimize impact to nocturnal wildlife;
- Constructing power lines in conjunction with Avian Power Line Interaction Committee recommendations;
- Preserving existing locations and characteristics of drainage flows entering and exiting the site to the extent practical;
- Preparing and implementing a Storm Water Pollution Prevention Plan for construction activities;
- Preparing and implementing Spill Prevention, Control and Countermeasure Plans for construction and operations;
- Employing best management practices to avoid soil erosion and off-site impacts during construction;
- Using water and/or dust palliatives during grading and during operations to control dust;
- Installing slats or fabric screening on the portions of the perimeter security fencing that are adjacent to neighboring parcels that have been developed and are occupied for residential use; and
- Planting a vegetative buffer to enhance the view for vehicular drivers along Elliot Road.


RECEIVED JUN 10 2016

PROJECT TESTS/ENR/10/15/100130 MENDEVEY/PS/DESIGN/CIVIL/CAD/CID/01.DWG 06-07-2016 15:21 ALTHOMP/SON

| | | | | |
|-----|----------|-----|------|--|
| no. | date | by | desc | description |
| A | 05/26/14 | NLT | JTD | 1ST COUNTY SUBMITTAL FOR REZONE |
| B | 06/06/14 | NLT | JTD | 2ND COUNTY SUBMITTAL FOR REZONE (06/06/14) |


**REZONE SUBMITTAL -
NOT FOR CONSTRUCTION**

ZONING CASE # Z201807Z



**BURNS
& MCDONNELL**

| | | | |
|----------|--------------|---------|-----------|
| date | JUNE 6, 2018 | drawn | B. MOSER |
| designed | N. THOMPSON | checked | T. DOWELL |



Sempra®

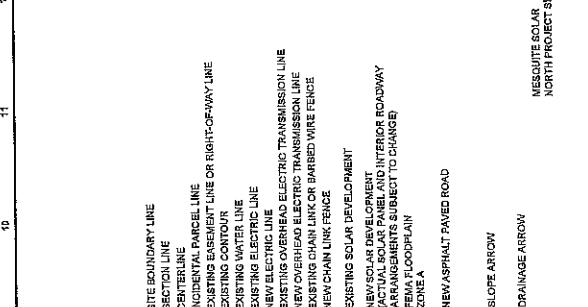
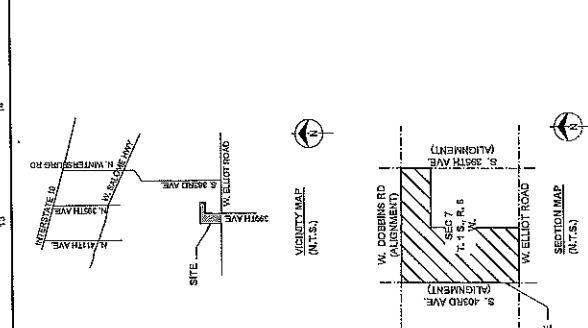
U.S. Gas & Power

MISSISSIPPI SOLAR NORTH

COVER SHEET

| | | | |
|---------|-------|----------|---|
| number | 98320 | revision | |
| drawing | C001 | sheet | B |
| sheet | 1 | of | 1 |

Drawn by: C001.dwg



| | | |
|--|-----|-------|
| MILES/ACRES OF FEMA ZONE A FLOODPLAIN | 1.1 | 203.0 |
| MILES OF IMPROVED WATERCOURSE OR STORM DRAIN | | 0.0 |
| ACRES OF RETENTION OR DETENTION AREAS | | 17.0 |

PARCEL LIST:
101-67038.6

SCHOOL DISTRICT
ARLINGTON SCHOOL DISTRICT 47
2410 S 35TH AVE ARLINGTON, AZ 85322-8134

UTILITIES
WATER.....PRIVATE WELL
WASTEWATER.....PRIVATE SEPTIC OR NON APPLICABLE
SEWER.....STUCKER VALLEY FIRE DEPT.

FIRE PROTECTION (760) 942-8888
POLICE (949) 453-3333
ELECTRIC (949) 453-3333
TELEPHONE (949) 453-3333
SEWER PROVIDER (949) 453-3333

BENCHMARK
2" MARICOPA COUNTY ALUMINUM CAP AT NORTHEAST
CORNER OF SECTION 18, TOWNSHIP 1S, RANGE 9W, G4SRM.
ELEVATION=998.136 FT. NAVD83 DATUM.

MESQUITE SOLAR NORTH

A PORTION OF SECTION 7, T. 1 S., R. 6 W. OF THE GILA AND SALT RIVER
MERIDIAN, MARICOPA COUNTY, ARIZONA.

| LEGAL DESCRIPTION | ADDRESS/LOT/BLK |
|---|-----------------|
| SECTION 7, T1S, R6W OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA. | AC |
| EXCEPT THAT PORTION DESCRIBED AS FOLLOWS: | ADPT |
| THE SOUTHWEST QUARTER OF AND SECTION 7; | SC |
| THE SOUTHEAST QUARTER OF AND SECTION 7; | BLDG |
| THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 7; | BFE |
| | SURV |

REFERENCES

1. PLSS SUBDIVISION RECORD OF SURVEY MARICOPA COUNTY GEODETIC DEPARTMENT AND CADASTRAL SURVEY, BOOK 716, PAGE 36, MARICOPA COUNTY SURVEY, BOOK 716.
2. A SURVEY PROVIDED TO SEMIRA BY GOOKIN ENGINEERS, INC. (480-497-5745) ENTITLED ALTAAGSAM LAND TITLE SURVEY MESQUITE SOLAR NORTH (NOT RECORDED).

FLOOD INSURANCE RATE MAP (FIRM)
THE MESQUITE SOLAR NORTH PROJECT SITE COMPRISES
ZONE X AND A SPECIAL FLOOD HAZARD AREA ZONE A.
MAP NUMBER: D4013C2525M
COMMUNITY: MARICOPA COUNTY
PANEL: 2525 OF 4425
EFFECTIVE DATE: 8/28/1989
REVISED DATE: 11/4/2015

FINISHED FLOOR CERTIFICATION

DUST CONTROL METHODS:
DURING GRADING & CONSTRUCTION, DUST CONTROL WILL BE BY WATERING AND CONTROLLED VEHICULAR SPEEDS. AFTER CONSTRUCTION, DUST CONTROL WILL BE BY CONTROLLED VEHICULAR SPEEDS. THE SOLAR PANELS WILL ACT AS WIND BREAKS. THE PERIMETER FENCING WILL ACT AS A WIND BREAK. NATURAL CRISTING OF THE TOP OF THE SOIL WILL REDUCE WIND BLOWN DUST.

ENGINEER
BURNS & MCDONNELL ENGINEERING CO., INC.
2600 N. CENTRAL AVE. SUITE 1500
PHOENIX, ARIZONA 85004
P: 602-977-2623
F: 602-977-2660

OWNER & DEVELOPER
SEP-IT, LLC
485 8TH AVE
SAN DIEGO, CA 92101-7123
TEL: 619-696-2281

SITE DATA
GROSS AREA: 280 ACRES
NET AREA: 359 ACRES

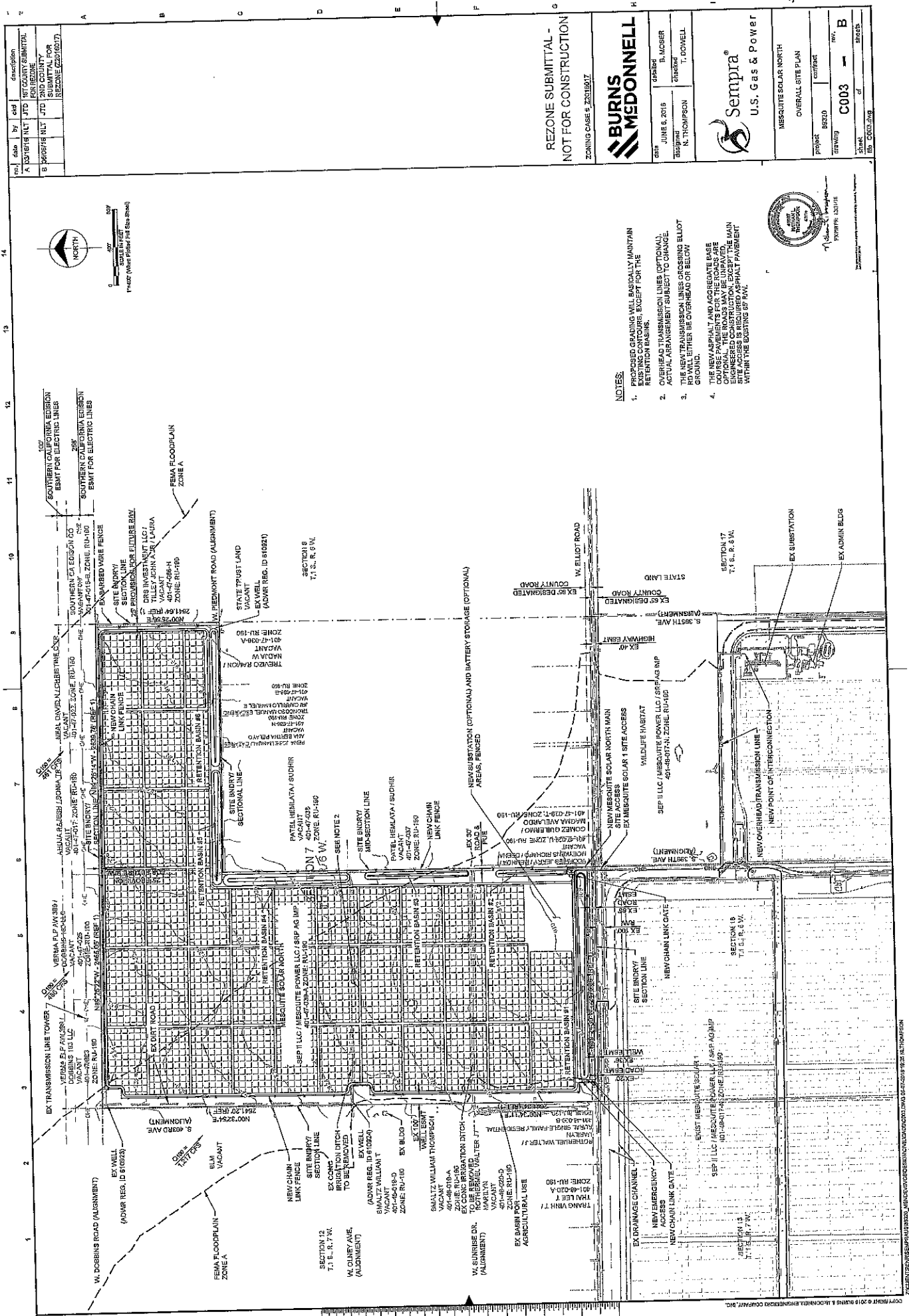
EXISTING ZONING: RU-190
EXISTING LAND USE: OPEN SPACE/VACANT LAND

NEW ZONING: IND-2 JUPD
NEW LAND USE: UTILITY

REQUEST
REQUEST ZONE CHANGE FROM RU-180 TO IND-2
WITH UPD OVERLAY FOR MESQUITE SOLAR NORTH.

DESCRIPTION OF PROPOSAL
REQUEST ZONE CHANGE FROM RU-180 TO IND-2 WITH
UPD OVERLAY FOR MESQUITE SOLAR NORTH.
REQUEST NEW LAND USE FROM OPEN SPACE/VACANT
LAND TO UTILITY FOR MESQUITE SOLAR NORTH.

ALSO EMPRAUSE 320 M6 NDEVEN DESIGN



| no. | date | by | chk | description |
|-----|----------|-----|-----|---------------------------------|
| 1 | 05/18/18 | NLT | JTD | 1ST COUNTY SUBMITTAL FOR REVIEW |
| 2 | 05/24/18 | NLT | JTD | 2ND COUNTY SUBMITTAL FOR REVIEW |
| 3 | 05/24/18 | NLT | JTD | 3RD COUNTY SUBMITTAL FOR REVIEW |

REZONE SUBMITTAL -
NOT FOR CONSTRUCTION

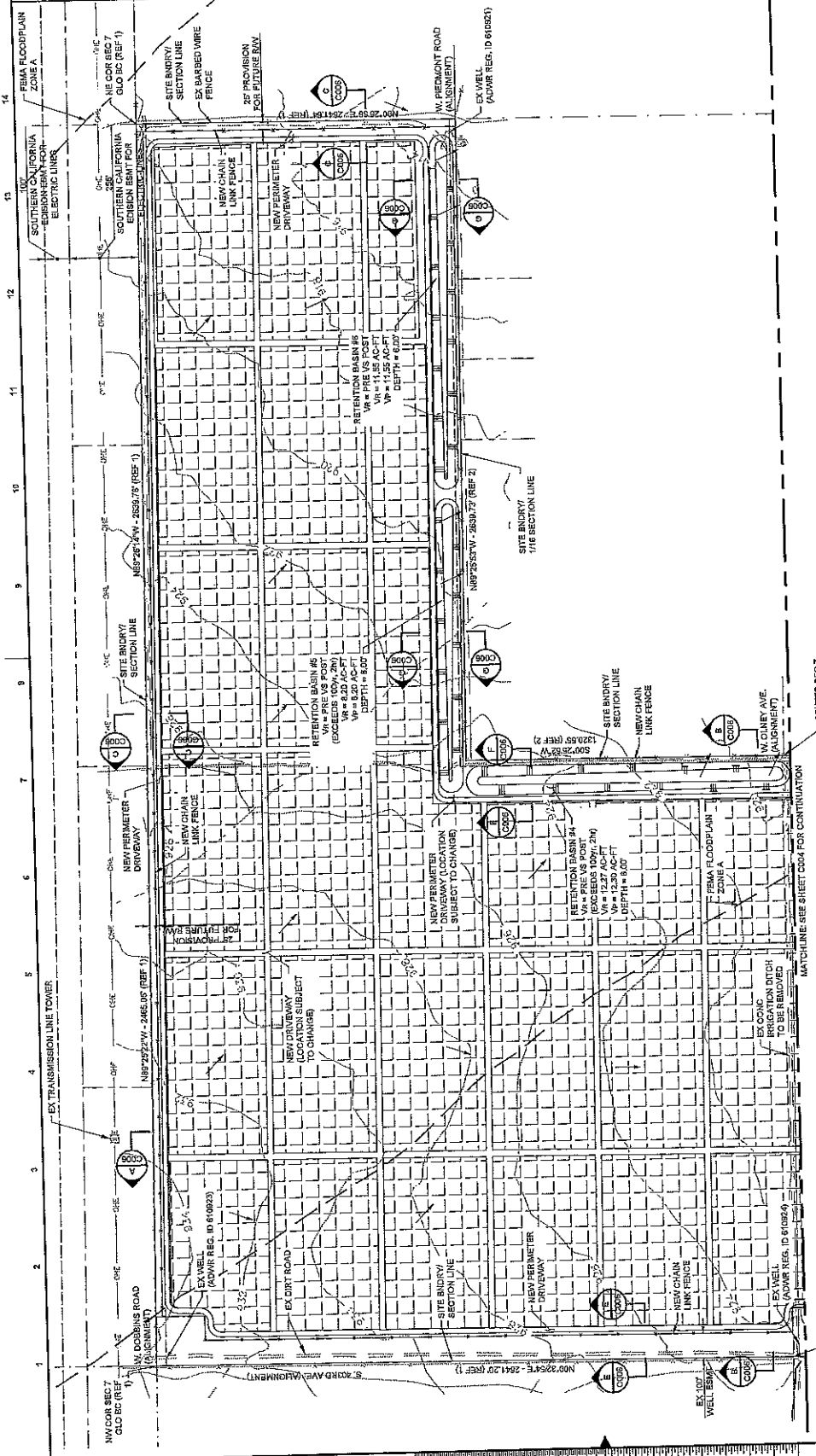
ZONING CASE # 22018017

**BURNS
MEDONNELL**

| | | |
|--------------|--------------|--------------|
| DESIGNED BY | DATE | DESIGNED BY |
| B. MOBER | JUNE 6, 2018 | DESIGNED BY |
| PROJECT | NO. THOMPSON | PROJECT |
| NO. THOMPSON | T. DOWELL | NO. THOMPSON |

Sempra
U.S. Gas & Power

| | | | |
|---------|----------|-------|----------|
| PROJECT | 88320 | SHEET | 116 |
| DATE | 05/20/18 | OF | 116 |
| NO. | C004 | NO. | B |
| DATE | 05/20/18 | DATE | 05/20/18 |



SCALE IN FEET
1" = 200' (When Plotted Full Size Sheet)



DATE: 05/20/18
BY: N. THOMPSON
CHECKED: T. DOWELL
DATE: 05/20/18

| seq. | date | by | cd | description |
|------|----------|-----|-----|----------------------------------|
| 1 | 12/15/16 | NLT | JTD | 1ST COUNTY SUBMITTAL FOR REZONE |
| 2 | 12/15/16 | NLT | JTD | 2ND COUNTY SUBMITTAL FOR REZONE |
| 3 | 12/15/16 | NLT | JTD | 3RD COUNTY SUBMITTAL FOR REZONE |
| 4 | 12/15/16 | NLT | JTD | 4TH COUNTY SUBMITTAL FOR REZONE |
| 5 | 12/15/16 | NLT | JTD | 5TH COUNTY SUBMITTAL FOR REZONE |
| 6 | 12/15/16 | NLT | JTD | 6TH COUNTY SUBMITTAL FOR REZONE |
| 7 | 12/15/16 | NLT | JTD | 7TH COUNTY SUBMITTAL FOR REZONE |
| 8 | 12/15/16 | NLT | JTD | 8TH COUNTY SUBMITTAL FOR REZONE |
| 9 | 12/15/16 | NLT | JTD | 9TH COUNTY SUBMITTAL FOR REZONE |
| 10 | 12/15/16 | NLT | JTD | 10TH COUNTY SUBMITTAL FOR REZONE |
| 11 | 12/15/16 | NLT | JTD | 11TH COUNTY SUBMITTAL FOR REZONE |
| 12 | 12/15/16 | NLT | JTD | 12TH COUNTY SUBMITTAL FOR REZONE |
| 13 | 12/15/16 | NLT | JTD | 13TH COUNTY SUBMITTAL FOR REZONE |
| 14 | 12/15/16 | NLT | JTD | 14TH COUNTY SUBMITTAL FOR REZONE |

REZONE SUBMITTAL -
NOT FOR CONSTRUCTION

ZONING CASE # 2201537

**BURNS
MEDONNELL**

DATE: JUNE 6, 2016
DESIGNED BY: B. MOSEY
CHECKED BY: N. THOMPSON
PROJECT: T. DOWELL

Sempra
U.S. Gas & Power

MESQUITE SOLAR NORTH

GRADING & DRAINAGE PLAN - SOUTH

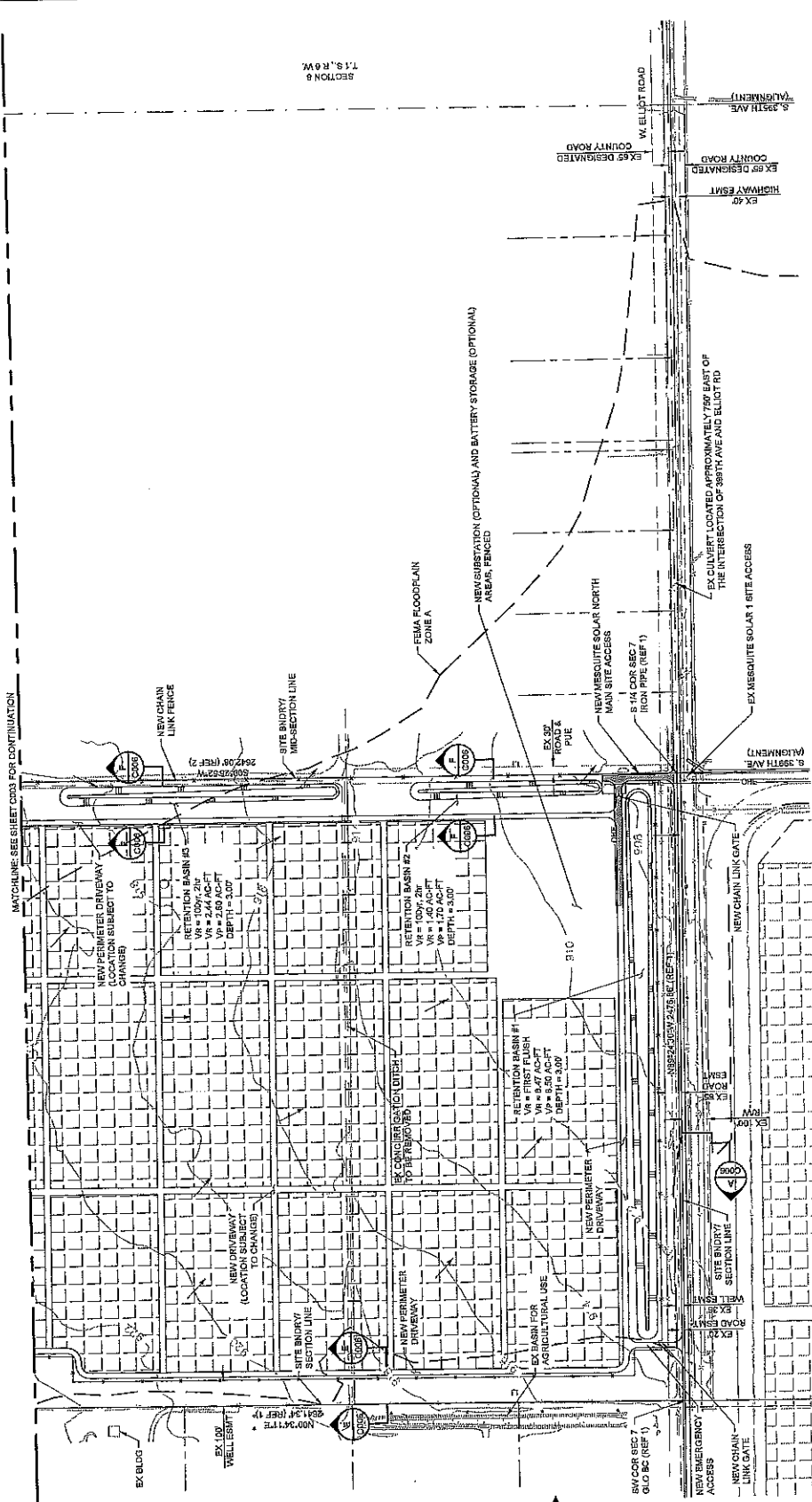
PROJECT: 88220

DATE: 8/22/16

BY: C005

STATUS: B

Sheet: 1 of 1



NOTE:
TO HELP MAINTAIN THE PRE-PROJECT STORMWATER LOWFLOW TO THE WILDLIFE HABITAT (SHOWN ON C005), RETENTION BASIN #1 WILL BE ALLOWED TO REMAIN OPEN TO THE WILDLIFE HABITAT. ANY CHANGES TO THE BASIN SHALL BE APPROVED BY THE COUNTY PRIOR TO CONSTRUCTION. ANY CHANGES TO THE BASIN SHALL BE APPROVED BY THE COUNTY PRIOR TO CONSTRUCTION. ANY CHANGES TO THE BASIN SHALL BE APPROVED BY THE COUNTY PRIOR TO CONSTRUCTION.

REGARDING THE BLEED-OFF OPTION: ONLY RETENTION BASIN #1 MAY UTILIZE BLEED-OFF DRAINS. BLEED-OFF DRAINS SHALL BE DESIGNED TO MEET THE 24 TO 36-HOUR EVACUATION REQUIREMENTS OF THE COUNTY. BLEED-OFF DRAINS SHALL BE DESIGNED TO MEET THE 24 TO 36-HOUR EVACUATION REQUIREMENTS OF THE COUNTY. BLEED-OFF DRAINS SHALL BE DESIGNED TO MEET THE 24 TO 36-HOUR EVACUATION REQUIREMENTS OF THE COUNTY.


FOR BLEED-OFF DRAINS, THE DESIGNED HIGH-WATER ELEVATIONS OF THE BASIN MAY BE USED TO DETERMINE THE BLEED-OFF DRAIN ELEVATIONS. THE BLEED-OFF DRAIN ELEVATIONS SHALL BE ABOVE THE EXISTING GROUND SURFACE GRAVITY DRAIN ONTO THE EXISTING GROUND SURFACE. ABOVE THE EXISTING GROUND SURFACE GRAVITY DRAIN ONTO THE EXISTING GROUND SURFACE. ABOVE THE EXISTING GROUND SURFACE GRAVITY DRAIN ONTO THE EXISTING GROUND SURFACE.

GROUND SURFACE ELEVATIONS AROUND THE EXISTING GROUND SURFACE GRAVITY DRAIN ONTO THE EXISTING GROUND SURFACE. ABOVE THE EXISTING GROUND SURFACE GRAVITY DRAIN ONTO THE EXISTING GROUND SURFACE. ABOVE THE EXISTING GROUND SURFACE GRAVITY DRAIN ONTO THE EXISTING GROUND SURFACE.

LOCATED APPROXIMATELY 750 FEET EAST OF THE INTERSECTION OF 395TH AVE AND ELLIOT RD. (SHOWN IN PLAN VIEW ON THIS DRAWING). FROM THIS LOCATION, THE DRAINS SHOULD BE EXPECTED TO DRAIN TO THE EXISTING FLOODPLAIN WITHIN THE WILDLIFE HABITAT.


| no. | date | by | cd | description |
|-----|----------|-----|-----|---|
| A | 03/18/16 | NLT | JTD | 1ST COUNTY SUBMITTAL FOR REZONE |
| B | 08/08/16 | NLT | JTD | 2ND COUNTY SUBMITTAL FOR REZONE (2/20/17) |

REZONE SUBMITTAL -
NOT FOR CONSTRUCTION
ZONING CASE # Z2016017



**BURNS
MCDONNELL**

| | | | |
|----------|--------------|---------|--------------|
| date | JUNE 6, 2016 | data/d | S. SAGGERSON |
| designed | N. THOMPSON | checked | T. DOWELL |

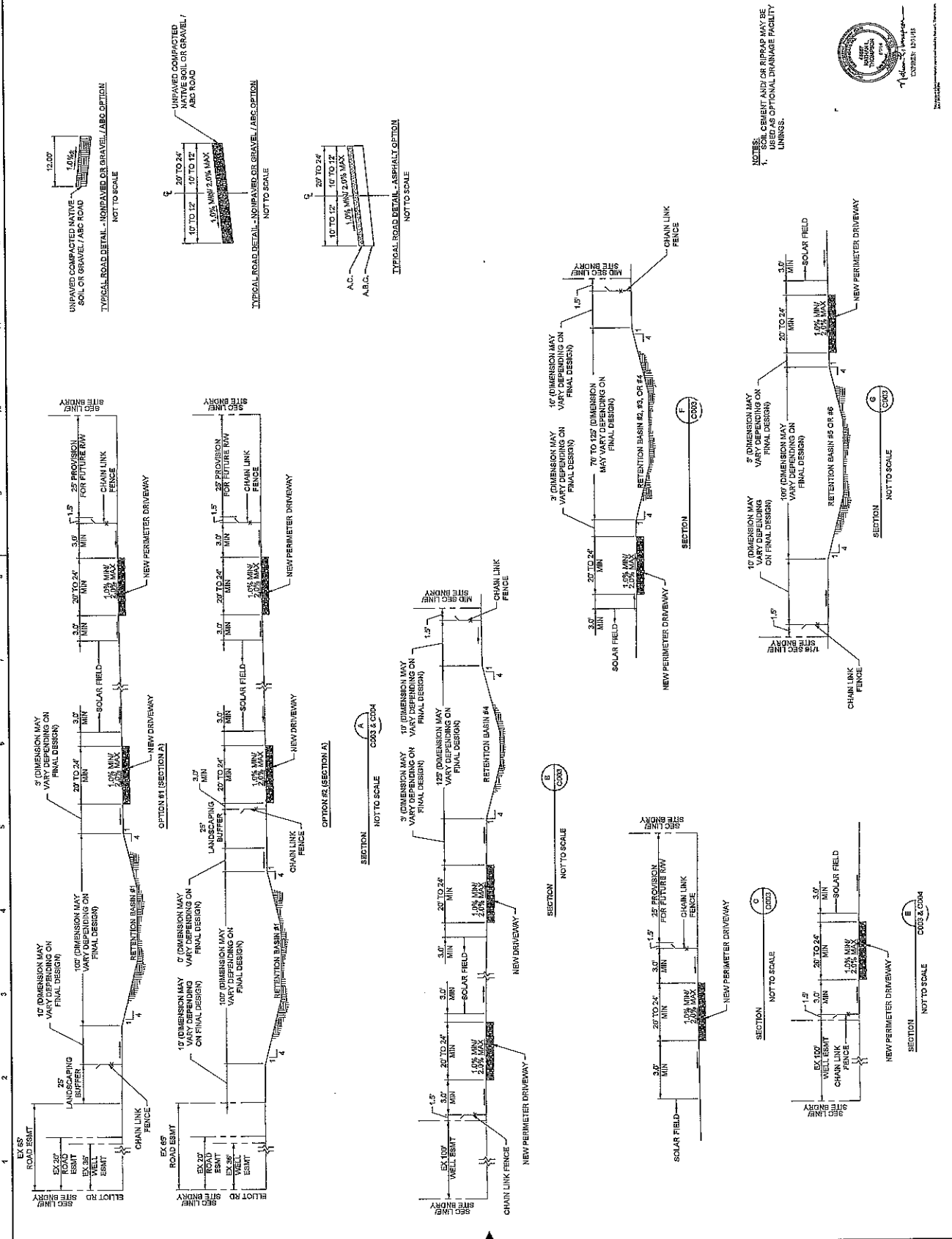


Semptra®
U.S. Gas & Power

MESQUITE SOLAR NORTH

| SECTION | PROJECT | CONTACT |
|---------|---------|---------|
| | 89320 | |

| | | |
|--------|----|----------|
| sheet | of | 9006 - B |
| sheets | | |



| no. | date | by | description |
|-----|----------|-----|----------------------------------|
| A | 03/15/18 | ALT | 1ST COUNTY SUBMITTAL FOR REVIEW |
| B | 08/01/18 | ALT | 2ND COUNTY SUBMITTAL FOR REVIEW |
| C | 08/01/18 | ALT | 3RD COUNTY SUBMITTAL FOR REVIEW |
| D | 08/01/18 | ALT | 4TH COUNTY SUBMITTAL FOR REVIEW |
| E | 08/01/18 | ALT | 5TH COUNTY SUBMITTAL FOR REVIEW |
| F | 08/01/18 | ALT | 6TH COUNTY SUBMITTAL FOR REVIEW |
| G | 08/01/18 | ALT | 7TH COUNTY SUBMITTAL FOR REVIEW |
| H | 08/01/18 | ALT | 8TH COUNTY SUBMITTAL FOR REVIEW |
| I | 08/01/18 | ALT | 9TH COUNTY SUBMITTAL FOR REVIEW |
| J | 08/01/18 | ALT | 10TH COUNTY SUBMITTAL FOR REVIEW |

REZONE SUBMITTAL -
NOT FOR CONSTRUCTION

ZONING CASE # Z001807

BURNS MEDONNELL

DATE: JUNE 6, 2018
DESIGNED BY: S. BAGGERSON
CHECKED BY: T. DOWELL

Sempra
U.S. Gas & Power

PROJECT: MESQUITE SOLAR NORTH

DETAILS 1

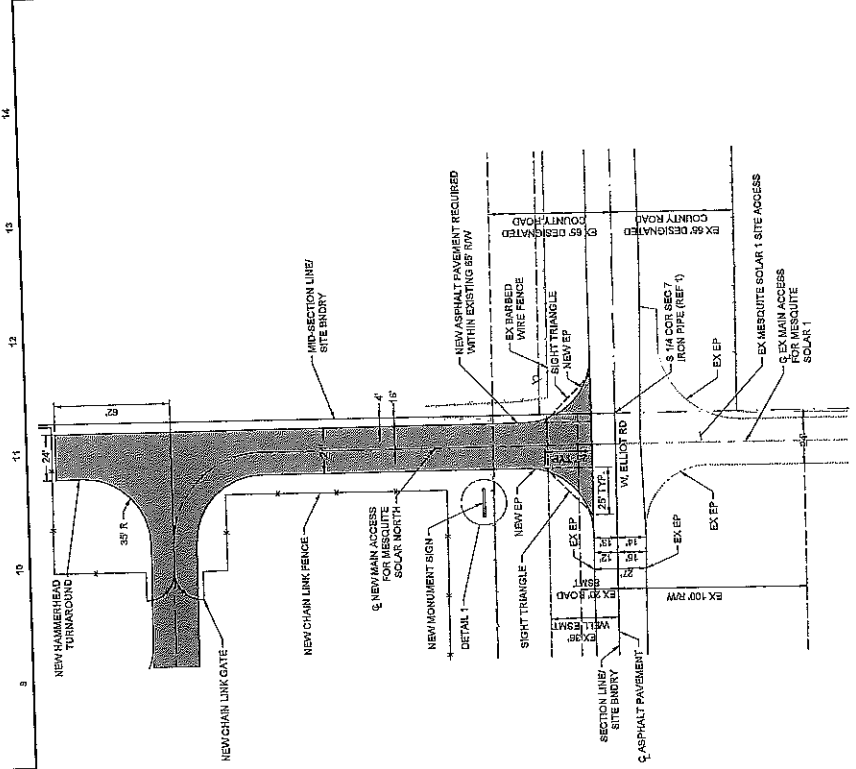
PROJECT: 85220

DATE: 06/07/2018

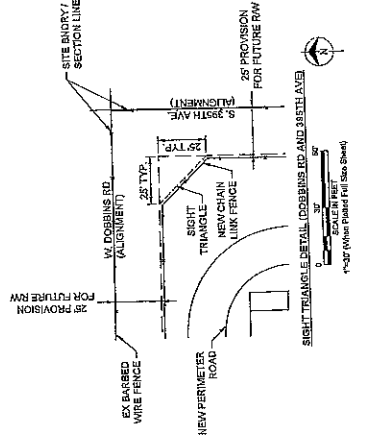
BY: C007

SCALE: 1"=20'

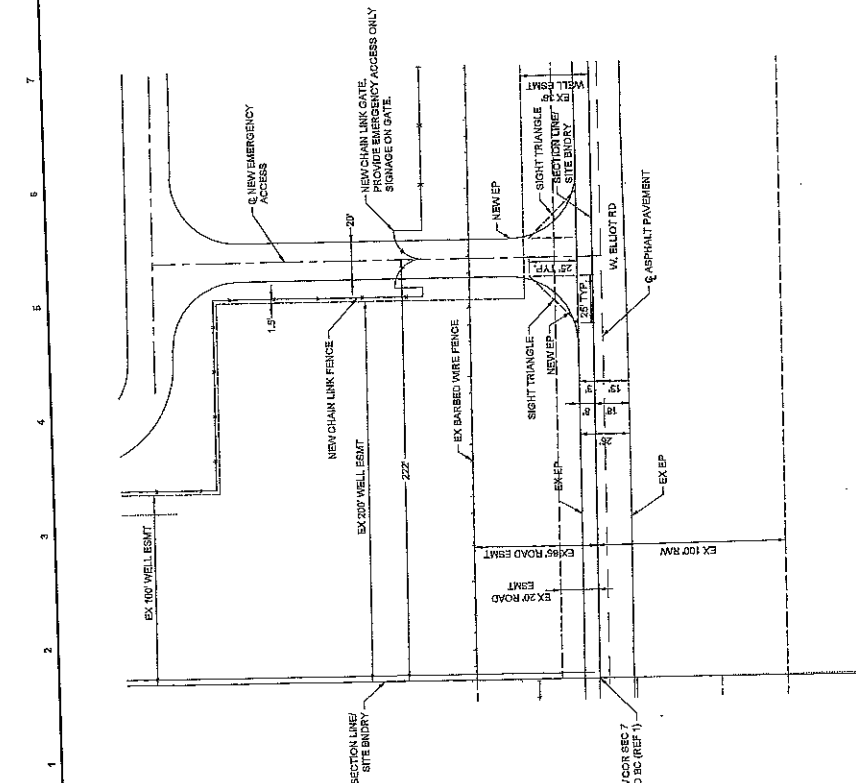
DATE: 06/07/2018



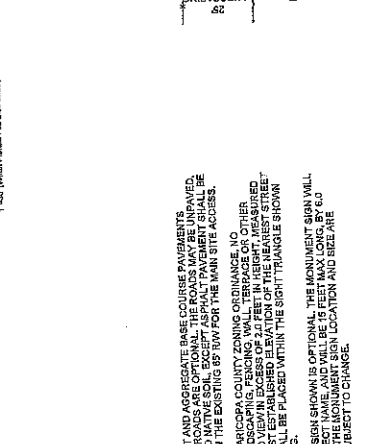
MAIN SITE ACCESS DETAIL (SEE PLAN)
SCALE: 1"=20' (When Plotted Full Size Sheet)



MAIN SITE ACCESS DETAIL (SEE PLAN)
SCALE: 1"=20' (When Plotted Full Size Sheet)



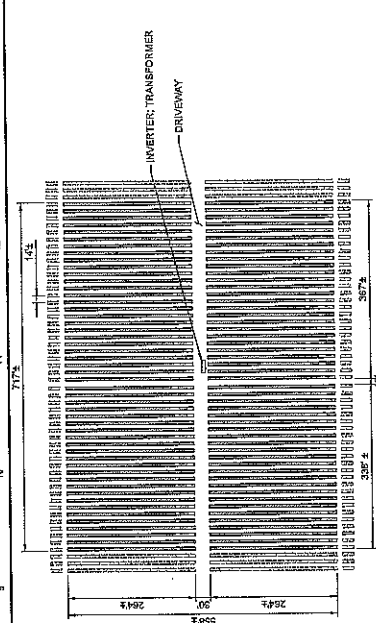
EMERGENCY ACCESS DETAIL (SEE PLAN)
SCALE: 1"=20' (When Plotted Full Size Sheet)



EMERGENCY ACCESS DETAIL (SEE PLAN)
SCALE: 1"=20' (When Plotted Full Size Sheet)

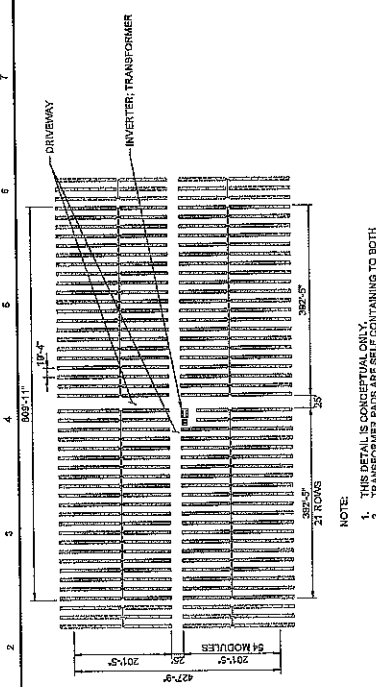
- NOTES:
1. THE NEW ASPHALT AND AGGREGATE BASE COURSE PAVEMENTS SHOWN FOR THE MESQUITE SOLAR 1 SITE ACCESS ARE FOR INFORMATION ONLY. THE MESQUITE SOLAR 1 SITE ACCESS IS NOT A NATIVE SOIL. EXCEPT ASPHALT PAVEMENT SHALL BE REQUIRED WITHIN THE EXISTING 85' ROW FOR THE MAIN SITE ACCESS.
 2. BASED ON THE MARICOPA COUNTY ZONING ORDINANCE, NO STRUCTURE, LANDSCAPING, FENCING, WALLS, OR OTHER OBSTRUCTIONS SHALL BE PLACED WITHIN THE SIGHT TRIANGLE SHOWN ON THIS DRAWING.
 3. THE MONUMENT SIGN SHOWN IS OPTIONAL. THE MONUMENT SIGN SHALL SHOW THE LOCATION OF THE MONUMENT SIGN LOCATION AND BE A CONCEPTUAL SUBJECT TO CHANGE.

| no. | date | by | field | description |
|-----|---------|-----|-------|---------------------------------|
| A | 2/25/16 | NLT | JTD | 1ST COUNTY SUBMITTAL FOR REZONE |
| B | 6/25/16 | NLT | JTD | 2ND COUNTY SUBMITTAL FOR REZONE |
| C | 6/25/16 | NLT | JTD | REZONE 22/15/17 |



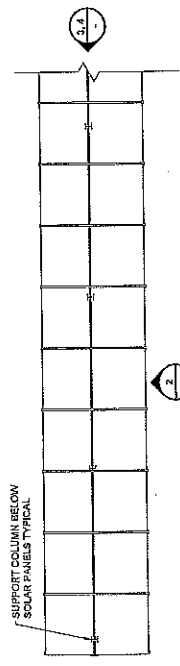
NOTE:
 1. THIS DETAIL IS CONCEPTUAL ONLY.
 2. TRANSFORMER PADS ARE SELF CONTAINING TO BOTH OIL SPILLAGE AND THE 100-YR. 24 HR. PRECIPITATION.

TYPICAL TRACKING 1.5-MW SOLAR PANEL LAYOUT 1

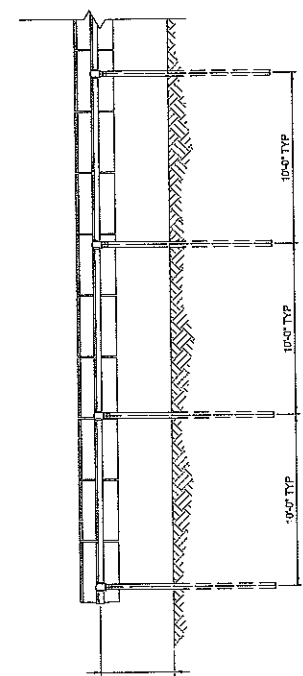
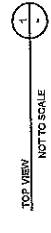


NOTE:
 1. THIS DETAIL IS CONCEPTUAL ONLY.
 2. TRANSFORMER PADS ARE SELF CONTAINING TO BOTH OIL SPILLAGE AND THE 100-YR. 24 HR. PRECIPITATION.

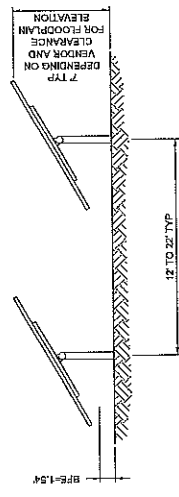
TYPICAL TRACKING 1.5-MW SOLAR PANEL LAYOUT 1



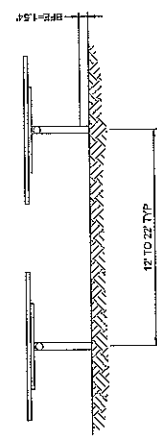
SOLAR PANEL PLAN



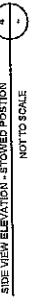
BACK VIEW ELEVATION



SIDE VIEW ELEVATION



SIDE VIEW ELEVATION - STONED POSITION



REZONE SUBMITTAL -
 NOT FOR CONSTRUCTION

ZONING CASE # 22018017

BURNS MEDONNELL

DATE: JUNE 6, 2016
 DESIGNED BY: T. THOMPSON
 CHECKED BY: T. DOWELL

Semptra
 U.S. Gas & Power

MESQUITE SOLAR NORTH
 DETAILS 2

| | | | |
|---------|-------|------|----------|
| PROJECT | 88203 | DATE | 06/06/16 |
| DRAWING | C008 | REV. | B |
| SHEET | 08 | OF | 08 |



Maricopa County

Planning & Development Department
Engineering Plan Review

Robert Fedorka, P.E.
Planning & Development
501 North 44th Street, Suite 200
Phoenix, Arizona 85008
Phone: (602) 506-7151
Fax: (602) 506-8762
www.maricopa.gov/planning
Email address:
RobertFedorka@mail.maricopa.gov

Date: April 14, 2016

Memo To: Darren Gerard, AICP, Deputy Director, Department of Planning & Development

Attn: Raymond Banker, Planner, Planning & Development Services

From: Robert Fedorka, P.E., Drainage Engineering Supervisor, Planning & Development Services

cc: Michael Norris, P.E., Drainage Engineering Manager, Planning & Development

Subject: CPA2016002 – Mesquite Solar North
(E1 Memo)

Job Site Address: NWC Elliot Road and 339th Avenue, Tonopah
APN(s): 401-47-039A

I have reviewed the CPA application date stamped 03/16/2016. Engineering Plan Review (FCDMC and MCDOT) has no objections to the application.

There are Special Flood Hazard Areas on the site (FEMA Floodplain-Zone A), the impacts of which will be addressed as part of the pending zone change case (Z2016017) and subsequent building and floodplain use permits.

Right-of-way dedications required by MCDOT for perimeter roadways will be addressed as part of the pending zone change case (Z2016017).

Please contact me if you have any questions or require any additional information.



Maricopa County

Planning & Development Department

Robert Fedorka, P.E.
Planning & Development
501 North 44th Street, Suite 200
Phoenix, Arizona 85008
Phone: (602) 506-7151
Fax: (602) 506-8762
www.maricopa.gov/planning
Email address:
RobertFedorka@mail.maricopa.gov

Date: June 22, 2016

Memo To: Darren Gerard, AICP, Deputy Director, Department of Planning & Development

Attn: Raymond Banker, Planner, Planning & Development Services

From: Robert Fedorka, P.E., Engineering Supervisor, Planning & Development Services

cc: Michael Norris, P.E., Engineering Manager, Planning & Development

Subject: Z2016017 – Mesquite Solar North
Re-Zone to I-2 with IUPD
(E2 Memo)

Job Site Address: 39903 West Elliot Road, Tonopah, AZ 85354

APN(s): 401-47-039A

I have reviewed the Plans and Drainage Report, date stamped 06/10/2016 for the subject application. Engineering Review (Drainage, MCDOT & Flood Control District) has objections to the submittal.

Any approval should contain the following stipulations:

MCDOT

1. Major construction deliveries shall be avoided during shift changes at the Palo Verde Nuclear Plant.
2. Reservation of right-of-way along the following roadway alignments shall be maintained:

Dobbins Road: 25 feet (south side); and
395th Avenue: 25 feet (west side)
3. "Emergency Access Only" signage shall be provided on the gate at the western site access along Elliot Road.
4. Any work within the right-of-way of Elliot Road will require a permit from MCDOT.

DRAINAGE

1. The Drainage Waiver submitted under application DRB2016001 must be approved.
2. All retention basins must drain within 36 hours.
3. Drainage review of planning and/or zoning cases is for conceptual design only and does not represent final design approval nor shall it entitle applicants to future designs that are not in conformance with Section 1205 of the Maricopa County Zoning Ordinance and the Maricopa County Drainage Policies and Standards.
4. All development and engineering design shall be in conformance with Section 1205 of the Maricopa County Zoning Ordinance and current engineering policies, standards and best practices at the time of application for construction.
5. Detailed Grading and Drainage Plans showing the new site improvements must be submitted for the acquisition of building permits.

FLOOD CONTROL DISTRICT

1. A Floodplain Use Permit will be required concurrent with the required building permit(s) for the site.
2. Pads for inverters and energy storage devices within the Zone A Floodplain must be elevated to the regulatory flood elevation.
3. Slats in perimeter chain link fencing within the Zone A Floodplain shall be elevated to the base flood elevation.
4. All development and engineering design shall be in conformance with the most current version of the Floodplain Use Regulations for Maricopa County.

Please contact me if you have any questions or require clarification of these comments.



Maricopa County

Environmental Services Department
Water and Waste Management
Division

Subdivision Infrastructure &
Planning Program
1001 N. Central Avenue #150
Phoenix, Arizona 85004
Phone: (602) 506-1058
Fax: (602) 506-5813
TDD: 602 506 6704

DATE: March 22, 2016

TO : Raymond Banker, Planning & Development Dept.
Planner

FROM: Souren Naradikian, P.E.
Senior Civil Engineer

SUBJECT: Mesquite Generating Station. CPA2016002

The Maricopa County Environmental Services Department (MCESD) has reviewed documents received from the Maricopa County Planning and Development Department for the above referenced project. Applicant request is for comprehensive plan amendment to allow future solar energy development at property APN # 401-47-039A. Water/Sewer service – is not required. Stormwater - The parcel is not located in the urbanized unincorporated area, and therefore, not regulated by the Maricopa County Stormwater Quality Program.

Based on the above, MCESD **raised no objection** to this project to the Planning & Development Department on March 22, 2016 and can support the status report at this time subject to the following stipulations:

Stipulations: None

It should be noted that several other Maricopa County agencies must review this project.



Maricopa County
Environmental Services Department
Water and Waste Management
Division

Subdivision Infrastructure &
Planning Program
1001 N. Central Avenue #150
Phoenix, Arizona 85004
Phone: (602) 506-1058
Fax: (602) 506-5813
TDD 602 506 6704

DATE: March 22, 2016

TO : Raymond Banker, Planning & Development Dept.
Planner

FROM: Souren Naradikian, P.E.
Senior Civil Engineer

SUBJECT: Mesquite Generating Station North. Z2016017

The Maricopa County Environmental Services Department (MCESD) has reviewed documents received from the Maricopa County Planning and Development Department for the above referenced project. Applicant request is for comprehensive plan amendment to allow future solar energy development at property APN # 401-47-039A. Water/Sewer service – is not required. Stormwater - The parcel is not located in the urbanized unincorporated area, and therefore, not regulated by the Maricopa County Stormwater Quality Program.

Based on the above, MCESD **raised no objection** to this project to the Planning & Development Department on March 22, 2016 and can support the status report at this time subject to the following stipulations:

Stipulations: None

It should be noted that several other Maricopa County agencies must review this project.

Raymond Banker - PLANDEVX

From: Ian Thompson - SHERIFFX
Sent: Wednesday, April 13, 2016 8:32 AM
To: Raymond Banker - PLANDEVX
Subject: FW: New Cases: CPA2016002 & Z2016017 (Mesquite Solar North)
Attachments: Z2016017_CPA2016002 TAC route sheet.pdf; CPA application signed.pdf; Exhibit A Site Plan.pdf; Mesquite Solar North -Zone Change_overlay application_final_clean.doc; Zone Change application signed.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Raymond: I have reviewed the information for this application and confirm the Sheriff's Office has no additional comments for the TAC regarding the Comprehensive Plan Amendment or Zone Change.

Thank you,

Ian

The information contained in this e-mail and any files transmitted with it are confidential and/or privileged, and are intended solely for the use of the recipients listed above. If you are not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of the transmitted information is strictly prohibited. If you received this transmission in error, please immediately notify the sender and delete and destroy all copies and attachments.

From: Raymond Banker - PLANDEVX
Sent: Tuesday, April 12, 2016 3:23 PM
Subject: New Cases: CPA2016002 & Z2016017 (Mesquite Solar North)

Good afternoon,

You are receiving this email as the above mentioned cases are in an area which you are considered an "Area of Interest". Attached are documents relating to the subject cases. Please let me know if you if have any questions.

Sincerely,

Ray Banker
Planner
Maricopa County
Planning and Development Department



501 N. 44th St, Suite 200
Phoenix, AZ 85008
Office: (602) 506-2364
Email: RaymondBanker@mail.maricopa.gov



Maricopa County

Department of Emergency Management

5630 East McDowell Road
Phoenix, Arizona 85008-3403
Phone: (602) 273-1411
Fax: (602) 275-1638
TT: (602) 244-1638

DATE: April 19, 2016
TO: Ray Banker, Planning & Development
FROM: Julie Symopoulos, Planning & Communications Manager
RE: Mesquite Solar North - CPA2016002 & Z2016017

Thank for you for the opportunity to review the above referenced comprehensive plan amendment and zoning request related to 380 acres to be developed as a solar power generating facility. The Maricopa County Department of Emergency Management (MCDEM) has reviewed the materials for the above referenced proposal and have several brief comments:

- MCDEM recommends a will serve letter from a fire service provider be secured prior to final approval.
- The proposed development is located within the 10-mile Plume Exposure Pathway Emergency Planning Zone (EPZ) for the Palo Verde Nuclear Generating Station (PVNGS). This EPZ has been established in response to the potential for radioactive contamination to whole body (external), as well as thyroid and other organs (inhalation) in the event of a major emergency at PVNGS. It is essential that owners and employees are aware of specific actions (shelter in place, evacuation, other) that may need to be taken in the event of an emergency at PVNGS. The owner is advised to contact the PVNGS Emergency Preparedness department for additional information and placards to post on the property as appropriate.
- The narrative indicates a variety of potential hazard substances may exist on site. Accordingly, the applicant is advised that they may have reporting requirements under EPCRA (Emergency Planning and Community Right-to-Know Act).
- The property is completely located within siren 33 audible range.
- Given the proximity of the Palo Verde Nuclear Generating Station, we recommend an emergency response plan be created to address this operational location (or amendment of an existing plan to include this section of the larger development) in the event of a major emergency.

Maricopa County
Department of Emergency
Management
5630 E. McDowell Road
Phoenix, Arizona 85008
Phone: (602) 273-1411
Fax: (602) 275-1638

December 20, 2013

Minor Amendment to a Commercial Plan of Development Case #Z2013118

2

- Previous portions of the same development prompted a Traffic Impact Analysis in 2009. MCDEM has no concerns as long as MCDOT remains satisfied that this project poses the same conditions as the previous development and the viability of Elliot Road as a major evacuation route remains intact.
- Page 6 of the Narrative indicates that "The project will also request a Drainage Waiver to waive the 100-year, 2-hour retention volume, and 6-inch maximum depth of flooding over Elliot Road from the 100-year rain event requirements. As noted above, MCDEM is extremely concerned with any proposal that may impact the all-weather viability of Elliot Road in this area.

We appreciate the opportunity to review development proposals and have no objections to the proposal. If you have any questions regarding the above information, please contact Julie Symopoulos at (602) 273-1411.

JS